



Office Products Group

MATERIAL SAFETY DATA SHEET**MSDS # 3000****Section One: Identification**

Newell Rubbermaid, Inc. (Sanford L.P.)
2707 Butterfield Road
Oak Brook, IL 60523 USA
800-323-0749 or 630-481-2000

EMERGENCY MEDICAL NUMBER:

888-786-0972

Product Name: Sharpie Fine Point Marker, Sharpie Ultra Fine Point Marker, Sharpie Extra Fine Marker, Sharpie Chisel Tip Marker, Sharpie Twin Tip Marker, Super Sharpie Marker, Super Sharpie Twin Tip Marker, Sharpie Mini Fine Point Marker, Sharpie Micro Marker, Sharpie Grip Marker, Sharpie Retractable Fine Point Marker, Sharpie Magnum Marker, Sharpie King Size Marker, Sharpie Liquid Tip Marker, Sharpie Premium, Sharpie CD Marker, Sharpie Pro, Sharpie Pro King Size, Sharpie Pro Magnum, Sharpie Aluminum Barrel, Sharpie Brush Tip Marker, Esterbrook by Sharpie.

Colors: All Colors

NewellRubbermaid, Inc (Sanford L.P.) is a member of The Art and Creative Materials Institute, Inc. This product is certified by the Institute to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236 and is labeled with the AP Non Toxic Seal. Products bearing the AP Approved Product Seal of The Art and Creative Materials Institute, Inc. are certified in a program of toxicological evaluation by a medical expert, subject to review by the Institute Toxicology Advisory Board, to contain no materials in sufficient quantities to be toxic or injurious to humans, or to cause acute toxicity or chronic health problems.

Section Two: Hazard Identification

Not Hazardous under normal use conditions. Not for use on skin. Do not ingest. Contact with eyes may cause irritation.

Section Three: Composition

: Butanol (71-36-3), Propanol (71-23-8), Diacetone Alcohol (123-42-2), Ethanol (64-17-5), pigments, dyes, additives

Section Four: First Aid Measures

Inhalation: Remove source of irritation. If symptoms persist seek medical attention

Skin Contact: Wash with soap and water. If irritation persists seek medical attention.

Eye Contact: Rinse eyes with water, if irritation persists seek medical attention.

Ingestion: If symptoms occur seek medical attention.

Section Five: Fire Fighting Measures

Flash Point: N/A

Extinguishing Media: As appropriate for surrounding area.

Special Fire Fighting Measures: N/A

Hazardous combustion products: N/A

Section Six: Accidental Release Measures

In Case of Spill or Accidental Release: Wipe up with absorbent material.

Section Seven: Handling and Storage

Handling: Do not shake marker.

Storage: Keep cap on marker when not in use.

Section Eight: Exposure Controls and Personal Protection

Eye Protection: None under normal use conditions.

Clothing: None under normal use conditions.

Respirator: None under normal use conditions.

MATERIAL SAFETY DATA SHEET

MSDS # 3000

Section Nine: Physical and Chemical Properties

Boiling Point: N/A
 Specific Gravity: N/A
 Vapor Pressure: N/A
 Solubility in Water: N/A
 Evaporation Rate: N/A
 Appearance/Odor: Marker/Alcohol (ink)

Section Ten: Stability and Reactivity

Stability: N/A
 Conditions to Avoid: Avoid exposure to heat, flame or other sources of ignition.
 Chemical Incompatibility: N/A
 Hazardous Polymerization: N/A.

Section Eleven: Toxicological Information

See Section Two: Hazard Identification for any hazards

Section Twelve: Ecological Information

Not available

Section Thirteen: Disposal Considerations

Dispose of in accordance with all Federal, State, and Local Regulations.

Section Fourteen: Transport Information

DOT: Not available
 IATA: Not available
 IMO: Not available

Section Fifteen: Regulatory Information

United States: All components in this product are listed on or exempt from reporting under the Federal Toxic Substances Control Act (TSCA).

Section Sixteen: Other Information

HMIS Code	
Health	N/A
Flammability	N/A
Reactivity	N/A
Personal Protection	N/A

0=Minimal / 4 = Severe

NewellRubbermaid, Inc has been advised by Counsel that the OSHA Hazard Communication Standard and the Health Canada Workplace Hazardous Materials Information Standard do not apply to the Sanford Product described in this Material Safety Data Sheet. The reasons for the exemptions are contained in 29 CFR 1910.1200(b)(6)(ix) as amended Sept 14, 2009 per the Code of Federal Regulations and also Canadian Hazardous Products Act part 12 section (f) as amended June 1, 2009. The information contained in this MSDS is forwarded to you for your information, but is not meant to imply that the product is covered by nor is this MSDS meant to comply with all requirements of the hazard communication standards.



Sodium Bicarbonate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 03/12/2015 Date of issue: 03/12/2015 Supersedes Date: 03/09/2012

Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Substance

Product Name: Sodium Bicarbonate

CAS No: 144-55-8

Formula: NaHCO₃

Synonyms: Baking Soda

Intended Use of the Product

Food Ingredient, Pharmaceutical, Household and Personal Care Product, Water Treatment, General Industrial Use.

Name, Address, and Telephone of the Responsible Party

Company

Church & Dwight

500 Charles Ewing Blvd

Ewing Township, NJ 08628

T 1-800-524-1328

www.churchdwight.com

Emergency Telephone Number

Emergency Number : For Medical Emergency: 1-888-234-1828, For Chemical Emergency: 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

The consumer variant of this product is labeled in accordance with regulations administered by the Consumer Product Safety Commission (CPSC) and the Food and Drug Administration (FDA). The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this SDS differ from the labeling requirements of the CPSC and FDA, and as a result, this SDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

Classification of the Substance or Mixture

Classification (GHS-US) Not classified

Label Elements

GHS-US Labeling No labeling applicable

Other Hazards Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Prolonged contact with dust can produce mechanical irritation.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name : Sodium Bicarbonate

CAS No : 144-55-8

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Sodium bicarbonate	(CAS No) 144-55-8	100	Not classified

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

Inhalation: When symptoms occur: go into open air and ventilate suspected area.

Skin Contact: Brush off loose particles from skin. Rinse immediately with plenty of water. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention if irritation persists.

Sodium Bicarbonate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention if a large amount is swallowed.

Most Important Symptoms and Effects Both Acute and Delayed

General: None expected under normal conditions of use.

Inhalation: Prolonged inhalation of dust may cause respiratory irritation.

Skin Contact: Skin contact with large amounts of dust may cause mechanical irritation.

Eye Contact: Contact may cause irritation due to mechanical abrasion.

Ingestion: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: For surrounding fire: Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: NOT FLAMMABLE . Under fire conditions, hazardous fumes will be present.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Sodium oxides.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust or fumes. Avoid skin and eye contact.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Avoid generation of dust during clean-up of spills. Keep in suitable, closed containers for disposal. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: When heated, material emits irritating fumes.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Materials: Acids. Water. Lime.

Storage Temperature: < 65 °C (150 °F)

Sodium Bicarbonate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Specific End Use(s) Food Ingredient, Pharmaceutical, Water Treatment, General Industrial Use

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Particulates not otherwise classified (PNOC)		
USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³ Respirable fraction 10 mg/m ³ Total Dust
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³ Respirable fraction 15 mg/m ³ Total Dust
Alberta	OEL TWA (mg/m ³)	10 mg/m ³ (total)
British Columbia	OEL TWA (mg/m ³)	10 mg/m ³ (total dust)
Manitoba	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particles, recommended)
New Brunswick	OEL TWA (mg/m ³)	3 mg/m ³ (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
Newfoundland & Labrador	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particles, recommended)
Nova Scotia	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particles, recommended)
Nunavut	OEL TWA (mg/m ³)	5 mg/m ³ (respirable mass)
Northwest Territories	OEL TWA (mg/m ³)	5 mg/m ³ (respirable mass)
Ontario	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable)
Prince Edward Island	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable particles, recommended)
Québec	VEMP (mg/m ³)	10 mg/m ³ (including dust, inert or nuisance particulates; containing no Asbestos and <1% Crystalline silica-total dust)
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³ (insoluble or poorly soluble-inhalable fraction) 6 mg/m ³ (insoluble or poorly soluble-respirable fraction)
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³ (insoluble or poorly soluble-inhalable fraction) 3 mg/m ³ (insoluble or poorly soluble-respirable fraction)

Exposure Controls

Appropriate Engineering Controls: For occupational/workplace settings: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment: For occupational or bulk quantities: Gloves. Safety glasses. Dust formation: dust mask.



Materials for Protective Clothing: For occupational or bulk quantities: Chemically resistant materials and fabrics.

Hand Protection: For occupational or bulk quantities: Wear chemically resistant protective gloves.

Eye Protection: For occupational or bulk quantities: Chemical goggles or safety glasses.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: White, crystalline powder
Odor	: None
Odor Threshold	: Not available
pH	: 8.2 (1% Solution)
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available

Sodium Bicarbonate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Upper/Lower Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific gravity / density	: 62 lb/ft ³
Specific Gravity	: Not available
Solubility	: Water: 8.6 g/100ml @ 20 °C (68 °F)
Partition Coefficient: N-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Decomposes slowly on exposure to water (moisture).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Exposure to moisture or moist air. Temperatures above 150°F (65 °C).

Incompatible Materials: Acids. Water. Lime.

Hazardous Decomposition Products: None known. At high temperature may liberate toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data:

Sodium Bicarbonate	
LD50 Oral Rat	7.3 g/kg
LC50 Inhalation Rat	> 4.7 mg/l/4h

Skin Corrosion/Irritation: Not classified [pH: 8.2 (1% Solution)]

Serious Eye Damage/Irritation: Not classified [pH: 8.2 (1% Solution)]

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged inhalation of dust may cause respiratory irritation.

Symptoms/Injuries After Skin Contact: Skin contact with large amounts of dust may cause mechanical irritation.

Symptoms/Injuries After Eye Contact: Contact may cause irritation due to mechanical abrasion.

Symptoms/Injuries After Ingestion: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available

Sodium Bicarbonate	
LC50 Fish 1	7100 mg/l Bluegill
EC50 Daphnia 1	4100 mg/l
LC 50 Fish 2	7700 mg/l Rainbow Trout
Sodium bicarbonate (144-55-8)	
LC50 Fish 1	8250 - 9000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	2350 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Sodium Bicarbonate

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Persistence and Degradability Not established

Bioaccumulative Potential Not established

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT Not regulated for transport

In Accordance with IMDG Not regulated for transport

In Accordance with IATA Not regulated for transport

In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal & International Regulations

Sodium Bicarbonate (144-55-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Neither this product nor its chemical components appear on any US state lists.

Canadian Regulations

Sodium bicarbonate (144-55-8)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 03/12/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

Church & Dwight
500 Charles Ewing Blvd
Ewing Township, NJ 08628
T 1-800-524-1328

This Product Safety Data Sheet is offered solely for your information, consideration and investigation. Church & Dwight Co., Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of data contained herein. Church & Dwight Co., Inc. urges persons receiving this information to make their own determination as to the information suitability for their particular application.

SAFETY DATA SHEET

The Safety Data Sheet is supplied as a service to you. For other related information, please visit:
<http://www.rayovac.com>

1. IDENTIFICATION

PRODUCT NAME: Alkaline Battery Mercury Free
SIZES: All sizes
EMERGENCY HOTLINE: 800-424-9300 (24 hr, Chemtrec)
EDITION DATE: 07/01/2017

2. HAZARD IDENTIFICATION

We would like to inform our customers that these batteries are exempt articles and are not subject to the 29 CFR 1910.1200 OSHA requirements, Canadian WHMIS requirements or GHS requirements.

Emergency Overview

OSHA Hazards-not applicable
Target Organs-not applicable
GHS Classification-not applicable
GHS Label Elements, including precautionary Statement-not applicable
Pictogram-not applicable
Signal words-not applicable
Hazard statements-not applicable
Precautionary statements-not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV**/TWA
Manganese Dioxide	1313-13-9	32-38	C5.0 mg/m ³
Steel	7439-89-6	19-23	---
Zinc	7440-66-6	11-16	5 mg/m ³ (as ZnO Fume)
Potassium Hydroxide	1310-58-3	5-9	Solution Not Listed
Graphite	7782-42-5	3-5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³
Water, paper, plastic, other	---	Balance	---

*Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 11-01-2012

4. FIRST AID INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA
EFFECTS OF OVEREXPOSURE: None in normal use
EMERGENCY FIRST AID PROCEDURES:

Skin and Eyes:

Do not pick up a shorting battery as it may cause a burn. Get immediate medical attention when eyes may have been exposed to battery contents from a ruptured battery. Wash skin with soap and water.

Swallowing:

If you or your doctor suspects that a battery has been ingested-for assistance in the US call the NATIONAL BATTERY INGESTION HOTLINE any time at (202) 625-3333; in Canada call 416-813-5900.

For more information, please visit:

<http://www.nema.org/Policy/Environmental-Stewardship/Documents/batteryingest.pdf>

5. FIRE FIGHTING MEASURES

FLASH POINT: NA
LOWER (LEL): NA
FLAMMABLE LIMITS IN AIR (%): NA
UPPER (UEL): NA
EXTINGUISHING MEDIA: Use water, foam, or dry powder as appropriate.
AUTO-IGNITION: NA

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products (See section 2).

SPECIAL FIRE OR EXPLOSION HAZARDS: DO NOT RECHARGE. As a typical sealed battery they may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. ACCIDENTAL RELEASE MEASURES

TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container.

REPORTING PROCEDURE: Report all spills in accordance with Federal, State and Local reporting requirements.

7. HANDLING AND STORAGE

Store batteries in a dry place. Storing unpackaged cells together with other combustible materials could result in cell shorting and heat build-up. Do not recharge. Do not puncture or abuse.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): NA
VENTILATION: Local Exhaust: NA
Mechanical (General): NA
Special: NA
Other: NA
PROTECTIVE GLOVES: NA
EYE PROTECTION: NA
OTHER PROTECTIVE CLOTHING: NA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point @ 760 mm Hg (°C):	NA	Percent Volatile by Volume (%):	NA
Vapor Pressure (mm Hg @ 25°C):	NA	Evaporation Rate (Butyl Acetate = 1):	NA
Vapor Density (Air = 1):	NA	Physical State:	NA
Density (grams/cc):	NA	Solubility in Water (% by Weight):	NA
pH:	NA	Appearance and Odor:	Geometric solid object

10. STABILITY AND REACTIVITY

STABLE OR UNSTABLE: Stable
INCOMPATIBILITY (MATERIALS TO AVOID): NA
HAZARDOUS DECOMPOSITION PRODUCTS: NA
DECOMPOSITION TEMPERATURE (0°F): NA
HAZARDOUS POLYMERIZATION: Will Not Occur
CONDITIONS TO AVOID: Avoid electrical shorting, puncturing or deforming

11. TOXICOLOGICAL INFORMATION

INGREDIENT NAME	CAS #	%	TLV**/TWA
Manganese Dioxide	1313-13-9	32-38	C5.0 mg/m ³
Steel	7439-89-6	19-23	---
Zinc	7440-66-6	11-16	5 mg/m ³ (as ZnO Fume)
Potassium Hydroxide	1310-58-3	5-9	Solution Not Listed
Graphite	7782-42-5	3-5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³
Water, paper, plastic, other	---	Balance	---

*Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 11-01-2012

12. ECOLOGICAL INFORMATION

Consumers should dispose of discharged batteries through waste disposal services or legitimate collection outlets. Those collecting batteries should follow state and federal regulations. Partially discharged damaged batteries can overheat and cause fires in the presence of other combustible materials.

13. DISPOSAL CONSIDERATIONS

Always comply with Federal, state or local requirements. All Rayovac Alkaline batteries have been tested per Federal hazardous waste testing requirements (TCLP). The TCLP tests show Rayovac alkaline batteries are not hazardous waste.

<http://www.nema.org/Policy/Environmental-Stewardship/Documents/Companies%20Claiming%20to%20Recycle.MARCH2005.pdf>

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: Alkaline Batteries are considered dry-cell batteries and they are non-dangerous goods for transportation. These batteries must be packed in a way to prevent short circuits or generation of a dangerous quantity of heat.

USDOT – See Special Provision 130.

IMO/Ocean – Not Listed.

ICAO/IATA – See Special Provision A123. This special provision also states to put the words “not restricted” and “special provision A123” on the air waybill when an air waybill is issued.

15. REGULATORY INFORMATION

SARA 313: Notification is not required because these products are article(s) that do not release a covered toxic chemical under the normal conditions of storage, use, or handling.

16. OTHER INFORMATION

The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Spectrum Brands Inc. (Rayovac) makes no warranty expressed or implied.

SAFETY DATA SHEET

The Safety Data Sheet is supplied as a service to you. For other related information, please visit:
<http://www.rayovac.com>

1. IDENTIFICATION

PRODUCT NAME: Alkaline Battery Mercury Free
SIZES: All sizes
EMERGENCY HOTLINE: 800-424-9300 (24 hr, Chemtrec)
EDITION DATE: 07/01/2017

2. HAZARD IDENTIFICATION

We would like to inform our customers that these batteries are exempt articles and are not subject to the 29 CFR 1910.1200 OSHA requirements, Canadian WHMIS requirements or GHS requirements.

Emergency Overview

OSHA Hazards-not applicable
Target Organs-not applicable
GHS Classification-not applicable
GHS Label Elements, including precautionary Statement-not applicable
Pictogram-not applicable
Signal words-not applicable
Hazard statements-not applicable
Precautionary statements-not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS #	%	TLV**/TWA
Manganese Dioxide	1313-13-9	32-38	C5.0 mg/m ³
Steel	7439-89-6	19-23	---
Zinc	7440-66-6	11-16	5 mg/m ³ (as ZnO Fume)
Potassium Hydroxide	1310-58-3	5-9	Solution Not Listed
Graphite	7782-42-5	3-5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³
Water, paper, plastic, other	---	Balance	---

*Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 11-01-2012

4. FIRST AID INFORMATION

THRESHOLD LIMIT VALUE (TLV) AND SOURCE: NA
EFFECTS OF OVEREXPOSURE: None in normal use
EMERGENCY FIRST AID PROCEDURES:

Skin and Eyes:

Do not pick up a shorting battery as it may cause a burn. Get immediate medical attention when eyes may have been exposed to battery contents from a ruptured battery. Wash skin with soap and water.

Swallowing:

If you or your doctor suspects that a battery has been ingested-for assistance in the US call the NATIONAL BATTERY INGESTION HOTLINE any time at (202) 625-3333; in Canada call 416-813-5900.

For more information, please visit:

<http://www.nema.org/Policy/Environmental-Stewardship/Documents/batteryingest.pdf>

5. FIRE FIGHTING MEASURES

FLASH POINT: NA
LOWER (LEL): NA
FLAMMABLE LIMITS IN AIR (%): NA
UPPER (UEL): NA
EXTINGUISHING MEDIA: Use water, foam, or dry powder as appropriate.
AUTO-IGNITION: NA

SPECIAL FIRE FIGHTING PROCEDURES: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products (See section 2).

SPECIAL FIRE OR EXPLOSION HAZARDS: DO NOT RECHARGE. As a typical sealed battery they may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

6. ACCIDENTAL RELEASE MEASURES

TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: In the event of a battery rupture, prevent skin contact and collect all released material in a plastic lined metal container.

REPORTING PROCEDURE: Report all spills in accordance with Federal, State and Local reporting requirements.

7. HANDLING AND STORAGE

Store batteries in a dry place. Storing unpackaged cells together with other combustible materials could result in cell shorting and heat build-up. Do not recharge. Do not puncture or abuse.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): NA
VENTILATION: Local Exhaust: NA
Mechanical (General): NA
Special: NA
Other: NA
PROTECTIVE GLOVES: NA
EYE PROTECTION: NA
OTHER PROTECTIVE CLOTHING: NA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point @ 760 mm Hg (°C):	NA	Percent Volatile by Volume (%):	NA
Vapor Pressure (mm Hg @ 25°C):	NA	Evaporation Rate (Butyl Acetate = 1):	NA
Vapor Density (Air = 1):	NA	Physical State:	NA
Density (grams/cc):	NA	Solubility in Water (% by Weight):	NA
pH:	NA	Appearance and Odor:	Geometric solid object

10. STABILITY AND REACTIVITY

STABLE OR UNSTABLE: Stable
INCOMPATIBILITY (MATERIALS TO AVOID): NA
HAZARDOUS DECOMPOSITION PRODUCTS: NA
DECOMPOSITION TEMPERATURE (0°F): NA
HAZARDOUS POLYMERIZATION: Will Not Occur
CONDITIONS TO AVOID: Avoid electrical shorting, puncturing or deforming

11. TOXICOLOGICAL INFORMATION

INGREDIENT NAME	CAS #	%	TLV**/TWA
Manganese Dioxide	1313-13-9	32-38	C5.0 mg/m ³
Steel	7439-89-6	19-23	---
Zinc	7440-66-6	11-16	5 mg/m ³ (as ZnO Fume)
Potassium Hydroxide	1310-58-3	5-9	Solution Not Listed
Graphite	7782-42-5	3-5	15 mppcf
Barium Sulfate	7727-43-7	<5	15 mg/m ³
Water, paper, plastic, other	---	Balance	---

*Source: OSHA 29 CFR 1910.1000 Table Z-1, 2 or 3 11-01-2012

12. ECOLOGICAL INFORMATION

Consumers should dispose of discharged batteries through waste disposal services or legitimate collection outlets. Those collecting batteries should follow state and federal regulations. Partially discharged damaged batteries can overheat and cause fires in the presence of other combustible materials.

13. DISPOSAL CONSIDERATIONS

Always comply with Federal, state or local requirements. All Rayovac Alkaline batteries have been tested per Federal hazardous waste testing requirements (TCLP). The TCLP tests show Rayovac alkaline batteries are not hazardous waste.

<http://www.nema.org/Policy/Environmental-Stewardship/Documents/Companies%20Claiming%20to%20Recycle.MARCH2005.pdf>

14. TRANSPORTATION INFORMATION

TRANSPORTATION-SHIPPING: Alkaline Batteries are considered dry-cell batteries and they are non-dangerous goods for transportation. These batteries must be packed in a way to prevent short circuits or generation of a dangerous quantity of heat.

USDOT – See Special Provision 130.

IMO/Ocean – Not Listed.

ICAO/IATA – See Special Provision A123. This special provision also states to put the words “not restricted” and “special provision A123” on the air waybill when an air waybill is issued.

15. REGULATORY INFORMATION

SARA 313: Notification is not required because these products are article(s) that do not release a covered toxic chemical under the normal conditions of storage, use, or handling.

16. OTHER INFORMATION

The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Spectrum Brands Inc. (Rayovac) makes no warranty expressed or implied.

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles
- **CAS Number:**
8002-74-2
- **EC number:**
232-315-6
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation** Illuminating Product.
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
SternoCandleLamp
1880 Compton Ave. 101
Corona, CA 92881
Phone: 951-682-9600
- **Further information obtainable from:** Product Safety Department
- **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585



2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
Not applicable.
N/A
- **Information concerning particular hazards for human and environment:** Not applicable.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** N/A
- **Hazard pictograms** N/A
- **Signal word** N/A
- **Hazard statements** N/A
- **Additional information:** N/A
- **Hazard description:**
- **WHMIS-symbols:** Not hazardous under WHMIS.
- **NFPA ratings (scale 0 - 4)**



(Contd. on page 2)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 1)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

· **HMIS Long Term Health Hazard Substances**

Substance is not listed.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description**
8002-74-2 Paraffin waxes and Hydrocarbon waxes
- **Identification number(s)**
- **EC number:** 232-315-6

4 First aid measures

- **4.1 Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Generally the product does not irritate the skin.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

(Contd. on page 3)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 2)

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **7.1 Precautions for safe handling** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

8002-74-2 Paraffin waxes and Hydrocarbon waxes

REL (USA)	2 mg/m ³
TLV (USA)	2 mg/m ³
EL (Canada)	2 mg/m ³
EV (Canada)	2 mg/m ³ fume

- **Additional information:** The lists valid during the making were used as basis.

(Contd. on page 4)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 3)

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Solid
· Colour:	Various colours
· Odour:	Odourless
· Odour threshold:	Not determined.

· **pH-value:** Not applicable.

· Change in condition

· Melting point/Melting range:	52-71 °C
· Boiling point/Boiling range:	Undetermined.

· **Flash point:** < 254 °C

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:** >300 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

· **Lower:** Not determined.

(Contd. on page 5)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 4)

Upper:	Not determined.
· Vapour pressure:	Not applicable.
· Density at 20 °C:	0,90 g/cm ³ (approximatif)
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solids content:	100,0 %
· 9.2 Other information	No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
The substance is not subject to classification according to the latest version of the EU lists.

(Contd. on page 6)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 5)

12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Moderately /partly biodegradable
- **12.3 Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|-----------------|
| · 14.1 UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | N/A |
| · 14.2 UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | N/A |
| · 14.3 Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | N/A |
| · 14.4 Packing group | |
| · DOT, ADR, IMDG, IATA | N/A |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 7)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 6)

· **UN "Model Regulation":** -

15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

- **Section 355 (extremely hazardous substances):**

Substance is not listed.

- **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

- **TSCA (Toxic Substances Control Act):**

Substance is listed.

- **Proposition 65 (California):**

- **Chemicals known to cause cancer:**

Substance is not listed.

- **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity:**

Substance is not listed.

- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

Substance is not listed.

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

- **Canada**

- **Canadian Domestic Substances List (DSL)**

Substance is listed.

(Contd. on page 8)

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS

Printing date 18.02.2013

Revision: 18.02.2013

Trade name: Tealights, Votive Candles, Victory Candles, Taper Candles, Pillar Candles, D-Lites, Cartridge Candles

(Contd. of page 7)

· **Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is not listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

Substance is not listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

· **Sources**

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

LA-CO Industries, Inc.

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)
Date of issue: 10/07/2015
Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

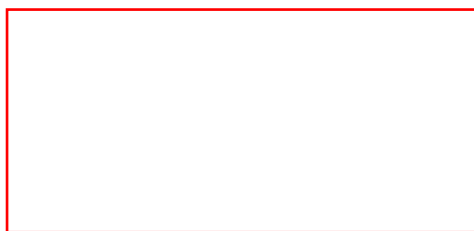
Product form : Mixture
Trade name : Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Marking.

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
1201 Pratt Boulevard
Elk Grove Village, IL. 60007-5746
Phone: (847) 956-7600
Fax: (847) 956-9885
E-mail: customer_service@laco.com



1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with the Globally Harmonized Standard

Carc. 1A H350

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS08

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H350 - May cause cancer
Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves
P308+P313 - If exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to an authorised waste collection point

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

2.3. Other hazards

2.4. Unknown acute toxicity (GHS US)

22.29 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

22.29 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

22.29 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS-US classification
Silicon dioxide (cristobalite)	(CAS No) 14808-60-7	0.5 – 1.5 Railroad White, Sky Blue, Purple; Carpenter's White 0.4 – 1.84 Railroad Yellow, Black 0.47 – 1.42 Railroad Extra Black 0.5 – 1.49 Railroad Blue, Pink; Carpenter's Blue 0.49 – 1.48 Railroad Green, Cherry 0.49 – 1.47 Railroad Orange; FI Scanning Yellow Green, Green, Purple 0.55 – 1.53 – Railroad Brown 0.49 – 1.46 FI Scanning Magenta, Orange	Carc. 1A, H350

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Gently wash with plenty of soap and water.
First-aid measures after eye contact	: In case of contact, immediately flush eyes with plenty of water.
First-aid measures after ingestion	: Drink plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May cause cancer by inhalation.
Symptoms/injuries after eye contact	: May cause slight irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Burning produces irritating, toxic and noxious fumes.
Explosion hazard	: Product is not explosive.
Reactivity	: No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protection during firefighting	: Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid creating or spreading dust.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves.

Emergency procedures : Ventilate area.

6.1.2. For emergency responders

Protective equipment : Wear suitable gloves.

Emergency procedures : Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Avoid generating dust.

Methods for cleaning up : Wipe up with absorbent material (for example cloth). Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting.

6.4. Reference to other sections

Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials : Heat sources.

Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Marking.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

ACGIH	Not applicable
-------	----------------

OSHA	Not applicable
------	----------------

Silicon dioxide (cristobalite) (14808-60-7)

ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³
-------	--------------------------------	-------------------------

ACGIH	Remark (ACGIH)	(respirable dust)
-------	----------------	-------------------

OSHA	OSHA PEL (TWA) (ppm)	250 mppcf
------	----------------------	-----------

OSHA	Remark (OSHA)	(3) See Table Z-3.
------	---------------	--------------------

Canada (Quebec)	VEMP (mg/m ³)	0.1 mg/m ³
-----------------	---------------------------	-----------------------

Canada (Quebec)	Notations and remarks	(la poussière respirable), (C2)
-----------------	-----------------------	---------------------------------

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Use rubber gloves.
Eye protection	: None under normal use.
Respiratory protection	: None under normal use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: A solid crayon-like marker.
Colour	: red.
Odour	: odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 0 %
-------------	-------

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Burning produces irritating, toxic and noxious fumes. Carbon oxides (CO, CO₂).

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

Silicon dioxide (cristobalite) (14808-60-7)

IARC group	1 - Carcinogenic to humans, Inhalation of dust
------------	--

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	
Symptoms/injuries after inhalation	: May cause cancer by inhalation.
Symptoms/injuries after eye contact	: May cause slight irritation.
Likely routes of exposure	: Inhalation;Skin and eye contact

SECTION 12: Ecological information

12.1 Toxicity

No additional information available

12.2 Persistence and degradability

No additional information available

12.3 Bioaccumulative potential

No additional information available

12.4 Mobility in soil

No additional information available

12.5 Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR)	: Not applicable
Transport hazard class(es) (ADR)	:

Transport by sea

Transport hazard class(es) (IMDG)	:
-----------------------------------	---

Air transport

Transport hazard class(es) (IATA)	:
-----------------------------------	---

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

SECTION 15: Regulatory information

15.1. US Federal regulations

Silicon dioxide (cristobalite) (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Silicon dioxide (cristobalite) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Silicon dioxide (cristobalite) (14808-60-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

15.3. US State regulations

Silicon dioxide (cristobalite) (14808-60-7)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Indication of changes

: Original Document.

Data sources

: ACGIH (American Conference of Government Industrial Hygienists).

European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

Abbreviations and acronyms

: ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number.

CLP: Classification, Labelling, Packaging.

EC50: Environmental Concentration associated with a response by 50% of the test population.

GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).

LD50: Lethal Dose for 50% of the test population.

OSHA: Occupational Safety & Health Administration.

PBT: Persistent, Bioaccumulative, Toxic.

TWA: Time Weight Average.

TSCA: Toxic Substances Control Act.

Other information

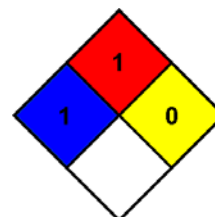
: None.

Polishing Block Large Blue, Large White, Small White; Carpenter's Chalk Blue, White; Walbuck® Railroad Chalk Black, Blue, Brown, Cherry, Green, Orange, Pink, Purple, Sky Blue, White, Extra Black, Yellow; Fluorescent Scanning Chalk Green, Magenta, Orange, Purple, Yellow Green

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
according to Canadian Hazardous Products Regulations (HPR)

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



Full text of H-statements:

Carc. 1A	Carcinogenicity, Category 1A
H350	May cause cancer

SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

LACO NA GHS SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

1 Identification

- **Product identifier**
- **Trade name:** Citric Acid Anhydrous, Laboratory Grade
- **Article number:** 031-2212
- **CAS Number:**
77-92-9
- **EC number:**
201-069-1
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Product safety department
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**
Causes serious eye irritation.
- **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.

(Contd. on page 2)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

Trade name: Citric Acid Anhydrous, Laboratory Grade

(Contd. of page 1)

- Classification system:
- NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
77-92-9 Citric Acid, Anhydrous
- Identification number(s)
- EC number: 201-069-1

4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.

(Contd. on page 3)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

Trade name: Citric Acid Anhydrous, Laboratory Grade

(Contd. of page 2)

- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
- The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

Trade name: Citric Acid Anhydrous, Laboratory Grade

· Eye protection:

(Contd. of page 3)



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Crystalline
Color:	White
Odor:	Odorless
Odour threshold:	Not determined.

· pH-value (100 g/l) at 20 °C (68 °F): 1.6

· Change in condition

Melting point/Melting range:	Information not °C
Boiling point/Boiling range:	Information not °C

· Flash point: Not applicable.

· Flammability (solid, gaseous): Product is not flammable.

· Ignition temperature: 1010 °C (1850 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapor pressure: Not applicable.

· Density at 20 °C (68 °F): 1.542 g/cm³ (12.868 lbs/gal)· Bulk density at 20 °C (68 °F): 900 kg/m³

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not applicable.

· Solubility in / Miscibility with

Water at 20 °C (68 °F): 600 g/l

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.
Other information	No further relevant information available.

USA
(Contd. on page 5)

Safety Data Sheet acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

Trade name: Citric Acid Anhydrous, Laboratory Grade

(Contd. of page 4)

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Oral	LD50	5040 mg/kg (mouse)
	Intraperitoneal	375 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- **Water hazard class 1 (Assessment by list):** slightly hazardous for water
- **Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.**
- **Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

USA
(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

Trade name: Citric Acid Anhydrous, Laboratory Grade

(Contd. of page 5)

13 Disposal considerations

- Waste treatment methods
- Recommendation:
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|-----------------|
| - UN-Number | |
| - DOT, ADN, IMDG, IATA | Not Applicable |
| - UN proper shipping name | |
| - DOT, ADN, IMDG, IATA | Not Applicable |
| - Transport hazard class(es) | |
| - DOT, ADN, IMDG, IATA | |
| - Class | Not Applicable |
| - Packing group | |
| - DOT, IMDG, IATA | Not Applicable |
| - Environmental hazards: | |
| - Marine pollutant: | No |
| - Special precautions for user | Not applicable. |
| - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| - Transport/Additional information: | |
| - DOT | Not Regulated |
| - UN "Model Regulation": | - |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): Substance is listed.
- Proposition 65
- Chemicals known to cause cancer: Substance is not listed.
- Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- Chemicals known to cause developmental toxicity: Substance is not listed.
- Carcinogenic categories
- EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.

(Contd. on page 7)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/03/2014

Trade name: Citric Acid Anhydrous, Laboratory Grade

(Contd. of page 6)

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**
Causes serious eye irritation.
- **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision**
Creation date for SDS 08/12/2014 LS
08/12/2014 / -
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
DOT: US Department of Transportation
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

1 Identification

- **Product identifier**
- **Trade name:** Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous
- **Article number:** 031-2608
- **CAS Number:** 10043-52-4
- **EC number:** 233-140-8
- **Index number:** 017-013-00-2
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Product safety department
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**
Causes serious eye irritation.
- **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

(Contd. on page 2)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

Trade name: Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous

(Contd. of page 1)

- Classification system:
- NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
10043-52-4 Calcium Chloride
- Identification number(s)
- EC number: 233-140-8
- Index number: 017-013-00-2

4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.

(Contd. on page 3)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

Trade name: Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous

(Contd. of page 2)

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
 - **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 4)

USA

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

Trade name: Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous

· Eye protection:

(Contd. of page 3)



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Powder
· Color:	White
· Odor:	Odorless
· Odour threshold:	Not determined.

· pH-value: Not applicable.

· Change in condition

· Melting point/Melting range:	782 °C (1440 °F)
· Boiling point/Boiling range:	> 1600 °C (> 2912 °F)

· Flash point: Not applicable.

· Flammability (solid, gaseous): Product is not flammable.

· Ignition temperature:

· Decomposition temperature: Not determined.

· Auto igniting: Not determined.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

· Lower:	Not determined.
· Upper:	Not determined.

· Vapor pressure: Not applicable.

· Density at 20 °C (68 °F): 2.15 g/cm³ (17.942 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not applicable.

· Solubility in / Miscibility with

· Water at 20 °C (68 °F): 740 g/l

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

· Dynamic: Not applicable.

· Kinematic: Not applicable.

· Other information: No further relevant information available.

USA
(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

Trade name: Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous

(Contd. of page 4)

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	1000 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- **Water hazard class 1 (Assessment by list):** slightly hazardous for water
- **Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
- **Must not be disposed of together with household garbage. Do not allow product to reach sewage system.**

(Contd. on page 6)

USA

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

Trade name: Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous

(Contd. of page 5)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|-----------------|
| · UN-Number | |
| · DOT, ADN, IMDG, IATA | Not Applicable |
| · UN proper shipping name | |
| · DOT, ADN, IMDG, IATA | Not Applicable |
| · Transport hazard class(es) | |
| · DOT, IMDG | |
| · Class | Not Applicable |
| · Label | - |
| · ADN/R Class: | Not Applicable |
| · Packing group | |
| · DOT, IMDG, IATA | Not Applicable |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- TSCA (Toxic Substances Control Act): Substance is listed.
- Proposition 65
- Chemicals known to cause cancer: Substance is not listed.
- Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- Chemicals known to cause developmental toxicity: Substance is not listed.
- Carcinogenic categories
- EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 7)

USA

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/12/2014

Reviewed on 02/17/2014

Trade name: Calcium Chloride 4-8 Mesh Dessicant Grade, Anhydrous

(Contd. of page 6)

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard statements

Causes serious eye irritation.

· Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing MSDS: Environment protection department.

· Contact: Mr. Nelson

· Date of preparation / last revision

Creation date for SDS 03-21-2014 STN

08/12/2014 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/19/2014

Reviewed on 03/21/2014

1 Identification

- **Product identifier**
- **Trade name:** Calcium Carbonate, Powder
- **Article number:** 034-1031
- **CAS Number:**
471-34-1
- **EC number:**
207-439-9
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
Product safety department
- **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**
Eye Irrit. 2B H320 Causes eye irritation.
- **Label elements**
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** Not Applicable
- **Signal word** Warning
- **Hazard statements**
Causes eye irritation.
- **Precautionary statements**
Wash thoroughly after handling.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**

	Health = 1
	Fire = 0
	Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**

HEALTH 1	Health = 1
FIRE 0	Fire = 0
REACTIVITY 0	Reactivity = 0
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

USA

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/19/2014

Reviewed on 03/21/2014

Trade name: Calcium Carbonate, Powder

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
471-34-1 Calcium Carbonate
- **Identification number(s)**
- **EC number: 207-439-9**

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 3)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/19/2014

Reviewed on 03/21/2014

Trade name: Calcium Carbonate, Powder

(Contd. of page 2)

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

471-34-1 Calcium Carbonate

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	TLV withdrawn

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Breathing equipment:** Not required.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Not required.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Powder, Granules or Chips

Color: White

· **Odor:** Odorless

· **Odour threshold:** Not determined.

· **pH-value (50 g/l) at 20 °C (68 °F):** 9.5

· **Change in condition**

Melting point/Melting range: 800 °C (1472 °F)

Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

(Contd. on page 4)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/19/2014

Reviewed on 03/21/2014

Trade name: Calcium Carbonate, Powder

(Contd. of page 3)

· Vapor pressure at 20 °C (68 °F):	0 hPa
· Density at 20 °C (68 °F):	2.7 g/cm ³ (22.532 lbs/gal)
· Bulk density at 20 °C (68 °F):	200-300 kg/m ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	0.013 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information	No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
 - Acute toxicity:
- | | | |
|--|------|------------------|
| · LD/LC50 values that are relevant for classification: | | |
| Oral | LD50 | 6450 mg/kg (rat) |
- Primary irritant effect:
 - on the skin: No irritant effect.
 - on the eye: No irritating effect.
 - Sensitization: No sensitizing effects known.
 - Additional toxicological information:
 - Carcinogenic categories
 - IARC (International Agency for Research on Cancer) Substance is not listed.
 - NTP (National Toxicology Program) Substance is not listed.
 - OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water
- Results of PBT and vPvB assessment
- PBT: Not applicable.

(Contd. on page 5)

— USA —

Safety Data Sheet
acc. to OSHA HCS

Printing date 11/19/2014

Reviewed on 03/21/2014

Trade name: Calcium Carbonate, Powder

(Contd. of page 4)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|-----------------|
| · UN-Number | |
| · DOT, ADN, IMDG, IATA | Not regulated |
| · UN proper shipping name | |
| · DOT, ADN, IMDG, IATA | Not regulated |
| · Transport hazard class(es) | |
| · DOT | Not applicable |
| · Class | Not regulated |
| · ADN/R Class: | Not regulated |
| · Packing group | |
| · DOT, IMDG, IATA | Not regulated |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Remarks: | Not regulated |
| · IMDG | |
| · Remarks: | Not regulated |
| · IATA | |
| · Remarks: | Not regulated |
| · UN "Model Regulation": | Not regulated |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.

(Contd. on page 6)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/19/2014

Reviewed on 03/21/2014

Trade name: Calcium Carbonate, Powder

(Contd. of page 5)

- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** Not Applicable
- **Signal word** Warning
- **Hazard statements**
Causes eye irritation.
- **Precautionary statements**
Wash thoroughly after handling.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision**
Creation date for SDS 10-02-2014, STN 11/19/2014 / -
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

USA

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION		
PRODUCT IDENTIFIER	CELAPOOL™	
CHEMICAL NAME	Diatomaceous Earth, Flux-Calcined	
CHEMICAL FAMILY	Silica	
MATERIAL USE	Filter Aid	
RESTRICTION ON USE	None Known	
MANUFACTURER	EP Minerals, LLC., 9875 Gateway Dr., Reno, NV 89521	
TELEPHONE NO.	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)	
EMERGENCY TELEPHONE NO.	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)	
SDS DATE OF PREPARATION	January 31, 2014	
SECTION 2: HAZARDS IDENTIFICATION		
OSHA GHS HAZARD CLASSIFICATION	Carcinogen Category 1A Specific Target Organ Toxicity, Repeated Exposure Category 1	
HAZARDS NOT OTHERWISE CLASSIFIED	None	
LABEL ELEMENTS	<p>DANGER May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wear eye protection. If exposed or concerned: Get medical advice. Dispose of contents in accordance with local, state and federal regulations.</p> 	
SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS		
INGREDIENT IDENTIFICATION	APPROXIMATE CONCENTRATION (%)	C.A.S. NUMBERS
Diatomaceous Earth, Flux-Calcined (kieselguhr) (contains 35-50% Crystalline Silica - Cristobalite)	100%	68855-54-9 14464-46-1
SECTION 4: FIRST AID MEASURES		
EYE	Flush eyes with generous quantities of water or eye rinse solution. Consult physician if irritation persists.	
SKIN	Use moisture renewing lotions if dryness occurs.	
INGESTION	Drink generous amounts of water to reduce bulk and drying effects.	
INHALATION	Remove to fresh air. Blow nose to evacuate dust.	
Most important symptoms/effects, acute and delayed	Dust may cause abrasive irritation to eyes. Prolonged skin contact may cause dryness. Dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of respirable dust containing silica may cause a progressive lung disease, silicosis and lung cancer. See Section 11 for additional information.	
Indication of immediate medical attention and special treatment, if necessary	Immediate medical attention is not normally required. If dust irritates the eyes, seek medical attention.	

MATERIAL NAME	CELAPOOL™	Page 2 of 4
---------------	-----------	-------------

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	Not applicable, the material is not combustible.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Not applicable, the material is not combustible.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS	Not applicable, the material is not combustible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	If dust is present, use respirator fitted with particulate filter as specified in Section 8. Protect eyes with goggles. Do not breathe dust.
ENVIRONMENTAL PRECAUTIONS	This material is not a significant environmental concern.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	Vacuum clean spillage or wet sweep. Avoid creating airborne dust. Place in a container for use or disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Minimize dust generation. Avoid contact with eyes. Do not breathe dust. Repair or dispose of broken bags. Observe all label precautions and warnings.
CONDITIONS FOR SAFE STORAGE	Store in a dry place to maintain packaging integrity and product quality. Do not store near hydrofluoric acid or concentrated caustic solutions.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:				
Component	OSHA PEL	ACGIH TLV	MSHA PEL	NIOSH REL
Diatomaceous Earth, Flux-Calcined (kieselguhr)	5 mg/m ³ respirable dust 15 mg/m ³ total dust	None Established	5 mg/m ³ respirable dust 15 mg/m ³ total dust	None Established
Crystalline Silica (Cristobalite)	$\frac{1}{2} \times \frac{30 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ total dust $\frac{1}{2} \times \frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ Respirable dust	0.025 mg/ m ³ Respirable dust	$\frac{1}{2} \times \frac{30 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ total dust $\frac{1}{2} \times \frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ Respirable dust	0.05 mg/ m ³ Respirable dust
ENGINEERING CONTROLS	Use general or local exhaust ventilation to control dust within recommended exposure limits. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.			
PERSONAL PROTECTIVE EQUIPMENT:				
EYE / FACE PROTECTION	Goggles to protect from dust			
SKIN PROTECTION	No special equipment is needed.			
RESPIRATORY PROTECTION	Respirators fitted with filters certified to standard 42CFR84 under series N95 should be worn when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use a quarter or half-mask respirator with a N95 dust filter or a single use dust mask rated N95. If dust concentration is greater than ten (10) times and less than fifty (50) times the PEL, a full-face piece respirator fitted with replaceable N95 filters is recommended. If dust concentration is greater than fifty (50) and less than two hundred (200) times the PEL use a power air-purifying (positive pressure) respirator with a replaceable N95 filter. If dust concentration is greater than two hundred (200) times the PEL use a type C, supplied air respirator (continuous flow, positive pressure), with full face piece, hood or helmet.			
GENERAL HYGIENE	Avoid breathing dust. Avoid contact with eyes. Wash hands after handling and before eating or drinking.			

MATERIAL NAME	CELAPOOL™	Page 3 of 4
---------------	-----------	-------------

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, COLOR	Light pink to white powder	ODOR	Odorless
PHYSICAL STATE	Solid	ODOR THRESHOLD	Not applicable
VAPOR PRESSURE	Not applicable	VAPOR DENSITY	Not applicable
BOILING POINT	Not applicable	MELTING POINT	> 1300° C
FLASH POINT	Not applicable	pH (10% SUSPENSION)	10
FLAMMABILITY LIMITS	Not applicable	EVAPORATION RATE	Not applicable
DECOMPOSITION TEMPERATURE	> 1300° C	SPEC. GRAVITY / RELATIVE DENSITY	2.3
AUTOIGNITION TEMPERATURE	Not applicable	PARTITION COEFFICIENT – n-OCTANOL/WATER	Not applicable
FLAMMABILITY (solid/gas)	Not applicable	SOLUBILITY – WATER	< 1%
		VISCOSITY	Not applicable

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	Material is not reactive.
CHEMICAL STABILITY	Material is stable.
POSSIBILITY OF HAZARDOUS REACTIONS	Material is not reactive under normal conditions of handling unless mixed with incompatible substances below.
CONDITIONS TO AVOID	Not applicable
INCOMPATIBLE MATERIALS	Hydrofluoric acid and concentrated caustic solutions may react violently with the product.
HAZARDOUS DECOMPOSITION PRODUCTS	Not applicable

SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS	
Likely Routes of Exposure	See below
EYE	May cause irritation (tear formation and redness) if dust gets in eyes.
SKIN	Not absorbed by the skin, but may cause dryness if prolonged exposure.
INGESTION	Ingestion of small quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.
INHALATION	Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Acute inhalation of high concentrations of respirable crystalline silica may cause acute silicosis.
CHRONIC EFFECTS	This product contains crystalline silica. Respirable crystalline silica may cause lung cancer and lung disease (silicosis) if inhaled for prolonged periods. Symptoms of silicosis include wheezing, cough and shortness of breath.
CARCINOGENICITY	Flux-calcined diatomaceous earth (Kieselguhr) is composed of amorphous and crystalline silica. Respirable crystalline silica (cristobalite) is classified by IARC and NTP as a known human carcinogen. Crystalline silica is only known to cause cancer when inhaled in a respirable form. It is not known to cause cancer by any other route of exposure.
NTP	Respirable crystalline silica (cristobalite) is classified as a known human carcinogen.
IARC	Respirable crystalline silica (cristobalite) is classified as a known human carcinogen.
NUMERICAL MEASURES OF TOXICITY	No data available
CORROSIVENESS, SENSITIZATION, IRRITANCY	Not applicable

MATERIAL NAME	CELAPOL™	Page 4 of 4					
REPRODUCTIVE TOXICITY	Not available						
TERATOGENICITY, MUTAGENICITY	Not available						
SECTION 12: ECOLOGICAL INFORMATION							
ECOTOXICITY:	Diatomaceous earth products have shown some efficacy as a natural insecticide, but otherwise have no demonstrated toxicity in regards to aquatic or terrestrial life.						
PERSISTENCE AND DEGRADABILITY	Non-biodegradable, inert.						
BIOACCUMULATIVE POTENTIAL	Little potential for bioaccumulation						
MOBILITY IN SOIL	No mobility						
OTHER ADVERSE EFFECTS	None known						
SECTION 13: DISPOSAL CONSIDERATIONS							
WASTE DISPOSAL	If this material as supplied becomes a waste, use solid waste disposal common to landfill type operations or in slurry to sumps. Not considered a hazardous waste under RCRA (40CFR Part 261).						
PACKAGING DISPOSAL	Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.						
SECTION 14: TRANSPORT INFORMATION							
BASIC SHIPPING INFORMATION	DOT shipping classification 55 (no restrictions). Technical name is "Diatomaceous Earth".						
ADDITIONAL INFORMATION	No special requirements or placarding necessary.						
SECTION 15: REGULATORY INFORMATION							
U.S. FEDERAL:							
TSCA	Diatomaceous Earth and Cristobalite appear on the EPA TSCA inventory list.						
CERCLA	Diatomaceous Earth is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.						
SARA TITLE III	Not listed.						
California Proposition 65:	This product contains crystalline silica, a chemical known to the State of California to cause cancer.						
INTERNATIONAL:							
WHMIS Classification	Class D-2-A						
WHMIS Ingredient Disclosure List	Silica, crystalline, cristobalite						
SECTION 16: OTHER INFORMATION							
	 <p>4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant</p>	<table border="1"> <tr> <td rowspan="4">HMIS</td> <td>0* Health</td> </tr> <tr> <td>0 Flammability</td> </tr> <tr> <td>0 Reactivity</td> </tr> <tr> <td>E Protective Equipment</td> </tr> </table>	HMIS	0* Health	0 Flammability	0 Reactivity	E Protective Equipment
HMIS	0* Health						
	0 Flammability						
	0 Reactivity						
	E Protective Equipment						
ORIGINAL ISSUE DATE	November 18, 1985						
REVISION DATE	April 21, 2015						
REVISION NO.	12						

Disclaimer: As of the date of the preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. No warranty, representation or guaranty of any kind, express or implied, is hereby provided or intended with respect to the completeness of the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by the purchase, resale, use or exposure to our product. Customer users of silica must comply with all applicable health and safety laws, regulations and orders, including OSHA Hazardous Communication Standard.

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

1 Identification

- **Product identifier**
- **Trade name:** Epsom Salts (Magnesium Sulfate Heptahydrate)
- **Article number:** 050-1159
- **CAS Number:**
10034-99-8
- **EC number:**
231-298-2
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Product safety department
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**
Chemtec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**
The substance is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **Precautionary statements**
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If swallowed: Call a poison center/doctor if you feel unwell.
If on skin: Wash with plenty of water.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**

1	0	0
---	---	---

 - Health = 1
 - Fire = 0
 - Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)
USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

Trade name: Epsom Salts (Magnesium Sulfate Heptahydrate)

· **vPvB:** Not applicable.

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
10034-99-8 Magnesium Sulfate Heptahydrate
- **Identification number(s)**
- **EC number:** 231-298-2

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
Requirements to be met by storerooms and receptacles: No special requirements.
- **Information about storage in one common storage facility:** Not required.

(Contd. on page 3)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

Trade name: Epsom Salts (Magnesium Sulfate Heptahydrate)

(Contd. of page 2)

- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Crystalline
Color:	White
Odor:	Odorless
Odour threshold:	Not determined.
- **pH-value (50 g/l) at 25 °C (77 °F):** 5 - 8
- **Change in condition**

Melting point/Melting range:	1124 °C (2055 °F)
Boiling point/Boiling range:	Undetermined.
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Product is not flammable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.

(Contd. on page 4)

USA

Safety Data Sheet
acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

Trade name: Epsom Salts (Magnesium Sulfate Heptahydrate)

(Contd. of page 3)

· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure: Not applicable.	
· Density at 20 °C (68 °F): 1.67 g/cm ³ (13.936 lbs/gal)	
· Relative density Not determined.	
· Vapour density Not applicable.	
· Evaporation rate Not applicable.	
· Solubility in / Miscibility with Water at 20 °C (68 °F): 246 g/l	
· Partition coefficient (n-octanol/water): Not determined.	
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information No further relevant information available.	

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	not available mg/kg (rat)
Dermal	LD50	not available mg/kg (rat)
Inhalative	LC50/4 h	not available mg/l (rat)
Irritation of skin	Skin Corrosion/Irritation	not available (rat)
Irritation of eyes	Eye damage/eye irritation	not available (rabbit)
	Germ cell mutagenicity	not available (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.

(Contd. on page 5)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

Trade name: Epsom Salts (Magnesium Sulfate Heptahydrate)

(Contd. of page 4)

- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADN, IMDG, IATA | Not regulated |
| · UN proper shipping name | |
| · DOT, ADN, IATA | Not regulated |
| · IMDG | Not Regulated |
| · Transport hazard class(es) | |
| · DOT, ADN, IMDG, IATA | |
| · Class | Not regulated |
| · Packing group | |
| · DOT, IMDG, IATA | Not regulated |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

(Contd. on page 6)

- USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

Trade name: Epsom Salts (Magnesium Sulfate Heptahydrate)

(Contd. of page 5)

· Transport/Additional information:

· DOT

· Remarks: Not regulated

· IMDG

· Remarks: Not regulated

· IATA

· Remarks: Not regulated

· UN "Model Regulation": Not regulated

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):** Substance is not listed.

· **Section 313 (Specific toxic chemical listings):** Substance is not listed.

· **TSCA (Toxic Substances Control Act):** Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:** Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.

· **Chemicals known to cause developmental toxicity:** Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)** Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

· **GHS label elements** Not Applicable

· **Hazard pictograms** Not Applicable

· **Signal word** Not Applicable

· **Hazard statements** Not Applicable

· **Precautionary statements**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:** Mr. Nelson

· **Date of preparation / last revision**

Creation date for SDS 08-06-2014. STN

11/13/2014 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

(Contd. on page 7)

USA

Safety Data Sheet
acc. to OSHA HCS

Printing date 11/13/2014

Reviewed on 03/26/2014

Trade name: Epsom Salts (Magnesium Sulfate Heptahydrate)

(Contd. of page 6)

DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

Section 1 Chemical Product and Company Identification

Page E1 of E2



**Aldon
Corporation**

221 Rochester Street
Avon, NY 14414
(585) 226-6177

CHEMTREC 24 Hour Emergency USA
Phone Number (800) 424-9300
1 703-741-5500 (from anywhere in the world).
For laboratory and industrial use only.
Not for drug, food or household use.

Product FOOD COLORING - SET OF 4

Synonyms Vegetable Dye

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: None required

Pictograms: No symbol required

Target organs: None known

GHS Classification: None required

GHS Label information: Hazard statement: None required

Precautionary statement: None required

Supplemental information:

Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
(Parts 1-4) Water	7732-18-5	99.5%	231-791-2
(Part 1) FD&C Blue #1 (C.I. No. 42090)	3844-45-9	0.5%	223-339-8
(Part 2) FD&C Yellow #5 (C.I. No. 19140)	1934-21-0	0.5%	217-699-5
(Part 3) FD&C Red #40 (C.I. No. 16035)	25956-17-6	0.5%	247-368-0
(Part 4) FD&C Green #3 (C.I. No. 42053)	2353-45-9	0.5%	219-091-5

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL BY INGESTION. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE ALLERGIC REACTIONS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	None established	None established	None established	None established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Liquid, dark yellow, green, blue or red.	Evaporation rate (Water = 1): <1	Partition coefficient: Data not available
Odor: No odor.	Flammability (solid/gas): Data not available.	Auto-ignition temperature: Data not available
Odor threshold: Data not available.	Explosion limits: Lower / Upper: Data not available	Decomposition temperature: Data not available.
pH: Data not available.	Vapor pressure (mm Hg): 14 (water)	Viscosity: Data not available.
Melting / Freezing point: Approximately 0°C (32°F) (water)	Vapor density (Air = 1): 0.7 (water)	Molecular formula: Mixture
Boiling point: Approximately 100°C (212°F) (water)	Relative density (Specific gravity): Approximately 1.0 (water)	Molecular weight: Mixture
Flash point: Data not available	Solubility(ies): Complete in water.	

Section 10 Stability & Reactivity

Chemical stability: Stable **Hazardous polymerization:** Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Strong oxidizers, reducing agents.

Hazardous decomposition products: Oxides of carbon, nitrogen oxides, sulfur oxides.

Section 11 Toxicological Information

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenicity: Data not available

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC classified: Group 3: Not classifiable as to its carcinogenicity to humans.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Not expected to be a health hazard.

Ingestion: May be harmful by ingestion.

Skin: Contact may cause irritation or allergic reaction.

Eyes: Contact may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

Section 12 Ecological Information

Toxicity to fish: No data available

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable

Shipping name: Not Regulated

Hazard class: Not applicable

Packing group: Not applicable

Reportable Quantity: No

Marine pollutant: No

Exceptions: Not applicable

2016 ERG Guide #: Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
All components listed with the following agencies: TSCA, EINECS, and DSL						This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.



SAFETY DATA SHEET

1. Identification

Product identifier	Sodium Chloride Food-Industrial (YPS Treated)
Other means of identification	
SDS number	S3
Synonyms	Diamond Crystal® Granulated Salt. * Flo-Ever® Granulated Salt - CMF®. * Gulf Shore Boat & Boil® Salt. * Flo-Ever® Fine Granulated Salt - CMF®. * Top-Flo® Plus Granulated Salt. * Top-Flo® Granulated Salt. * Hi-Tex® Granulated Salt. * Fine Blending Granulated Salt - YPS Treated. * Premier™ Extra Coarse Flake Salt. * Sodium Chloride (Salt). * Premier™ Select Coarse Flake Salt. * Premier™ Topping Flake Salt. * Premier™ Fine Flake Salt. * Purified Sea Salt with YPS. * Private Label Granulated Salt. * Sodium Chloride (Salt) - Treated with Yellow Prussiate of Soda (YPS). * Seafarer's® Fine Salt.
Recommended use	Salt may be intended for food or animal feed (agricultural) as well as several industrial applications including deicing and water conditioning.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	Cargill Incorporated
Address	Minneapolis, MN 55440
Telephone	1-888-385-7258
Website	www.cargillsalt.com
Emergency telephone number	CHEMTREC (800) 424-9300

2. Hazard(s) identification

Physical hazards	Not classified.
Health Hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Sodium Chloride	7647-14-5	99.9987-99.9995
Sodium Ferrocyanide Decahydrate	13601-19-9	0.0005-0.0013

GRAS Substance (Generally Recognized As Safe).

4. First-aid measures

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Give one or two glasses of water if patient is alert and able to swallow. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This product is not flammable or combustible.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner equipped with HEPA filter. Minimize dust generation and accumulation. Avoid release to the environment. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Avoid breathing dust. Avoid contact with eyes. Avoid contact with water and moisture. Keep away from strong acids. Practice good housekeeping.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Becomes hygroscopic at 70-75% relative humidity. Avoid humid or wet conditions as product will cake and become hard.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Unvented, tight fitting goggles should be worn in dusty areas.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.

Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	White crystalline solid
Physical state	Solid.
Form	Crystalline solid.
Color	White.
Odor	Halogen odor
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	1473.8 °F (801 °C)
Initial boiling point and boiling range	2669 °F (1465 °C) (760 mmHg)
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	2.4 mm Hg (1376.6 °F (747 °C))
Vapor density	Not available.
Relative density	2.16 (H ₂ O = 1)
Solubility(ies)	
Solubility (water)	26.4 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	53 - 83 lb/ft ³
Molecular formula	NaCl
Molecular weight	58.44
pH in aqueous solution	4 - 9

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Incompatible materials	Avoid contact with strong acids. Becomes corrosive to metals when wet.

Hazardous decomposition products May evolve chlorine gas when in contact with strong acids.

11. Toxicological information

Information on likely routes of exposure

Inhalation Inhalation of dusts may cause respiratory irritation.
Skin contact Prolonged or repeated skin contact may cause irritation.
Eye contact Dust in the eyes will cause irritation.
Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Eye and skin contact: Exposure may cause temporary irritation, redness, or discomfort. For ingestion, consuming less than a few grams would not be harmful. The following effects were observed after ingesting an excessive quantity: nausea and vomiting, diarrhea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, sunken eyes, high blood pressure, muscle weakness, dry mouth and nose, shock, cerebral edema (fluid on brain), pulmonary edema (fluid in lungs), blood cell shrinkage, and brain damage (due to dehydration of brain cells). Death is generally due to cardiovascular collapse or CNS damage.

Information on toxicological effects

Acute toxicity In some cases of confirmed hypertension, ingestion may result in elevated blood pressure.

Components	Species	Test Results
Sodium Chloride (CAS 7647-14-5)		
Acute		
<i>Oral</i>		
LD50	Mouse	4000 mg/kg
	Rat	3000 mg/kg
<i>Other</i>		
LD50	Mouse	2602 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Dust in the eyes will cause irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.
Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results	
Sodium Chloride (CAS 7647-14-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	340.7 - 469.2 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	4747 - 7824 mg/l, 96 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	None known.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 21-August-2014

Revision date -

Version # 01

HMIS® ratings
Health: 1
Flammability: 0
Physical hazard: 0
Personal protection: A

Disclaimer All statements, technical information and recommendations contained herein are, the best of our knowledge, reliable and accurate; however no warranty, either expressed or implied is made with respect thereto, nor will any liability be assumed for damages resultant from the use of the material described.

It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees and to develop work practice procedures to ensure a safe work environment.

This information is not intended as a license to operate under, or a recommendation to practice or infringe upon any patent of this Company or others covering any process, composition of matter or use.

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

1 Identification

- **Product identifier**
- **Trade name:** Kosher Salt
- **Article number:** 191-1117
- **CAS Number:**
7647-14-5
- **EC number:**
231-598-3
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586
- **Information department:**
Technical Coordinator
Sherman Nelson sherman@aquasolutions.org
Product safety department
- **Emergency telephone number:**
Chemtec: 800-424-9300
Canutec: 613-996-6666



2 Hazard(s) identification

- **Classification of the substance or mixture**
The substance is not classified according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Not Applicable
- **Hazard pictograms** Not Applicable
- **Signal word** Not Applicable
- **Hazard statements** Not Applicable
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

USA

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

Trade name: **Kosher Salt**

(Contd. of page 1)

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
7647-14-5 Sodium Chloride
- **Identification number(s)**
- **EC number: 231-598-3**

4 First-aid measures

- **Description of first aid measures**
- **General information: No special measures required.**
- **After inhalation: Supply fresh air; consult doctor in case of complaints.**
- **After skin contact: Generally the product does not irritate the skin.**
- **After eye contact: Rinse opened eye for several minutes under running water.**
- **After swallowing: If symptoms persist consult doctor.**
- **Most important symptoms and effects, both acute and delayed No further relevant information available.**
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture No further relevant information available.**
- **Advice for firefighters**
- **Protective equipment: No special measures required.**

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures Not required.**
- **Environmental precautions: Do not allow to enter sewers/ surface or ground water.**
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling No special measures required.**
- **Information about protection against explosions and fires: No special measures required.**
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles: No special requirements.**
- **Information about storage in one common storage facility: Not required.**
- **Further information about storage conditions: None.**

(Contd. on page 3)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

Trade name: **Kosher Salt**

(Contd. of page 2)

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Crystalline
Color:	White
Odor:	Odorless
Odour threshold:	Not determined.
- **pH-value at 20 °C (68 °F):** 6-9
- **Change in condition**

Melting point/Melting range:	Information not °C
Boiling point/Boiling range:	1413 °C (2575 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

Trade name: **Kosher Salt**

(Contd. of page 3)

- | | |
|---|-----------------|
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: Not determined. | |
| · Density at 20 °C (68 °F): 2.165 g/cm ³ (18.067 lbs/gal) | |
| · Bulk density at 20 °C (68 °F): 800-1600 kg/m ³ | |
| · Relative density Not determined. | |
| · Vapour density Not determined. | |
| · Evaporation rate Not determined. | |
| · Solubility in / Miscibility with Water at 20 °C (68 °F): 358 g/l | |
| · Partition coefficient (n-octanol/water): Not determined. | |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Organic solvents: | 0.0 % |
| · Other information No further relevant information available. | |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

7647-14-5 Sodium Chloride

Oral	LD50	3000 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The substance is not subject to classification.

(Contd. on page 5)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

Trade name: **Kosher Salt**

(Contd. of page 4)

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:** Smaller quantities can be disposed of with household waste.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- **DOT, IMDG, IATA** Not regulated

- **UN proper shipping name**

- **DOT, IATA** Not regulated

- **IMDG** Not Regulated

- **Transport hazard class(es)**

- **DOT, IMDG, IATA**

- **Class** Not regulated

- **Packing group**

- **DOT, IMDG, IATA** Not regulated

- **Environmental hazards:**

- **Marine pollutant:** No

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

Trade name: **Kosher Salt**

(Contd. of page 5)

· Special precautions for user	Not applicable.
---------------------------------------	-----------------

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
--	-----------------

· Transport/Additional information:	
--	--

· DOT	
--------------	--

· Remarks:	Not regulated
-------------------	---------------

· IMDG	
---------------	--

· Remarks:	Not regulated
-------------------	---------------

· IATA	
---------------	--

· Remarks:	Not regulated
-------------------	---------------

· UN "Model Regulation":	Not regulated
---------------------------------	---------------

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture

- Sara

· Section 355 (extremely hazardous substances):
--

Substance is not listed.

· Section 313 (Specific toxic chemical listings):
--

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

- Proposition 65

· Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:
--

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:
--

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

- Carcinogenic categories

· EPA (Environmental Protection Agency)
--

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

- GHS label elements Not Applicable

- Hazard pictograms Not Applicable

- Signal word Not Applicable

- Hazard statements Not Applicable

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 11/17/2014

Reviewed on 11/17/2014

Trade name: Kosher Salt

(Contd. of page 6)

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:** Mr. Nelson

· **Date of preparation / last revision** 11/17/2014 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity Isoamyl Benzoate for Synthesis
Alternate Names Isoamyl Benzoate for Synthesis

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Chemical for synthesis
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Thermco Products, Inc.
10 Millpond Drive,
Unit #10
Lafayette, NJ 07848

Emergency

Customer Service: Thermco Products, Inc. 973.300.9100

2. Hazard identification of the product

2.1. Classification of the substance or mixture

Combustible Liquid;H227 Combustible Liquid.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.
H227 Combustible liquid.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

No GHS response statements

[Storage]:

P403+235 Store in a well ventilated place. Keep cool.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
ISOPENTYL BENZOATE CAS Number: 0000094-46-2	100	Not classified	[1]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	No specific symptom data available. See section 2 for further details.
-----------------	---

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Do not inhale vapors/aerosols. Ensure supply of fresh air in enclosed rooms.

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



Hazardous decomposition: No hazardous decomposition data available.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

5.3. Advice for fire-fighters

Special risks:

Combustible. Vapors heavier than air.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapors possible in the event of fire.

Special protective equipment for fire fighting:

Do not stay in dangerous zone without self-contained breathing apparatus.

Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Do not inhale vapors/aerosols. Ensure supply of fresh air in enclosed rooms.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Do not inhale vapors/aerosols. Ensure supply of fresh air in enclosed rooms.

Take up with liquid-absorbent material (e.g. Chemizorb). Forward for disposal. Clean up affected area.

7. Handling and storage

7.1. Precautions for safe handling

Store in accordance with the National Fire Protection Association's publication NFPA 30, Flammable and Combustible Liquids Code. 29 CFR 1910.106 applies to the handling, storage, and use of flammable and combustible liquids.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in a cool dry area, away from heat, sparks and open flame. Keep containers sealed when not in use. Store out of direct sunlight.

Incompatible materials: Strong oxidizing agents

Tightly closed. At +15C to +25C.

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000094-46-2	ISOPENTYL BENZOATE	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000094-46-2	ISOPENTYL BENZOATE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Protective safety glasses required

Skin

Butyl rubber gloves
 Layer thickness: 0.7 mm
 Breakthrough time: >240 min

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



9. Physical and chemical properties

Appearance	Colorless Liquid
Odor	Almost Odorless
Odor threshold	Not Measured
pH	NA
Melting point / freezing point	NA
Initial boiling point and boiling range	260 C
Flash Point	89 C
Evaporation rate (Ether = 1)	NA
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: NA Upper Explosive Limit: NA
Vapor pressure (Pa)	NA
Vapor Density	NA
Density	0.99 g/cm ³ (@20C)
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity (cSt)	NA
VOC %	NA
Log Pow	4.15 (experimental) (Lit.)

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Forms explosive mixtures with air on intense heating.

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



10.5. Incompatible materials

Strong Oxidizing agents.

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
ISOPENTYL BENZOATE - (94-46-2)	6330.00, Rat - Category: NA	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Safety Data Sheet

Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



12. Ecological information

12.1. Toxicity

Do not allow product to enter water, wastewater or soil! See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
ISOPENTYL BENZOATE - (94-46-2)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

An appreciable bioaccumulation potential is to be expected ($\log P_{o/w} > 3$)

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable DOT Label: ---	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

Safety Data Sheet
Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification B3

US EPA Tier II Hazards

Fire: Yes

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): No

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
(No Product Ingredients Listed)

EPCRA 302 Extremely Hazardous :
(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:
(No Product Ingredients Listed)

Proposition 65 - Carcinogens (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):
(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):
(No Product Ingredients Listed)

N.J. RTK Substances (>1%) :
(No Product Ingredients Listed)

Penn RTK Substances (>1%) :
(No Product Ingredients Listed)

Safety Data Sheet
Isoamyl Benzoate for Synthesis

SDS Revision Date:

12/09/2014



16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is: not applicable

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

Disclaimer: This information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Document

SAFETY DATA SHEET

SECTION 1: Identification			
Product Name: SAF Instant Yeast Red Label Product codes: 15909, 31105, 31150, 31200, 41305		Manufacturer: SAFMEX Km. 57.5 Carretera Toluca, Mexico 414-615-4085 Emergency Phone: 800-424-9300	
SAF Instant Yeast (With Ascorbic Acid) is dry, active yeast produced from strains of <i>Saccharomyces cerevisiae</i> used as a food ingredient.			
SECTION 2: Hazard(s) Identification			
Health Hazard			
Irritant – Direct Eye Contact			
Sensitizing Agent – Inhalation			
No known hazards			
SECTION 3: Composition / Information on Ingredients			
Ingredients	CAS#	% by Weight	
Yeast (<i>S. cerevisiae</i>)	8013-01-2	>98%	
Sorbitan Monostearate	822-16-2	1%	
Ascorbic Acid	50-81-7	< 1%	
SECTION 4: First Aid Measures			
Eye Contact: Flush eyes with clear water for 15 minutes			
Inhalation: Remove person to area of fresh air.			
SECTION 5: Fire-Fighting Measures			
Flash Point	Solid	Extinguishing Material	CO ₂ , Water or Foam
Flammable Limits	NA	Hazard. Combustion Prods	None
Explosion - Mechanical	None	Explosion - Static	High Dust Levels
Firefighting Hazards	Material may become slippery when wet		
SECTION 6: Accidental Release Measures			
Spilled instant, active yeast powder can be cleaned up by vacuum or sweeping and disposed of in landfill. Wet cleaning can used to remove fine dust, with liquid waste to sewer.			
SECTION 7: Handling and Storage			
Handling: Avoid breathing dust. Avoid contact with skin and clothing. Keep out of eyes			
Storage: Store in original packaging or in clean covered container. Store in cool, dry conditions. Do not leave open bags exposed.			
SECTION 8: Exposure Controls / Personal Protection			
Respiratory Protection: Wear general purpose nuisance dust mask when handling			
Eye Protection: Wear safety goggles to avoid eye contact			
Clothing: No special requirements related to safety of product			
Engineering Controls: Dust collection equipment if excessive dust in area			

SAFETY DATA SHEET

SECTION 9: Physical and Chemical Properties			
Appearance	Light Tan Powder	Explosion Limits	Not Applicable
Vapor Pressure	Not Applicable	Vapor Density	Not Applicable
pH	4.5-6.5 (5% Solution)	Relative Density	0.35 g/ ml
Melting Point	Not Applicable	Freezing Point	Not Applicable
Solubility	Slightly	Boiling Point	Not Applicable
Flash Point	Not Applicable	Evaporation Rate	Not Applicable
Odor	Yeast	Viscosity	Not Applicable
Partition Coefficient	Not Applicable	Auto-ignition Temp	Not Applicable
Decomposition Temp.	Not Applicable		
SECTION 10: Stability and Reactivity			
Reactivity	Comines with sugar& water to produce CO ₂		
Chemical Stability	Stable under normal conditions of use		
Other	None		
SECTION 11: Toxicological Information			
Material is Generally Recognized as Safe (21 CFR)			
Long Term Exposure	No effects known		
Short Term Exposure	No effects known		
Sensitization	Possible sensitizing agent due to high protein content		
Allergen	Not a know allergen		
Carcinogenicity	Not Listed as carcinogenic by NTP or IARC		
Reproductive Toxicity	None		
SECTION 12: Ecological Information (non-mandatory)			
No environmental effect			
SECTION 13: Disposal Considerations (non-mandatory)			
Product can be disposed of in landfill or to sanitary sewer discharge in accordance with local regulations			
SECTION 14: Transport Information (non-mandatory)			
Shipping Classification	Not Hazardous		
Refrigeration	Not Required		
SECTION 15 Regulatory Information (non-mandatory)			
Production is regulated by the US FDA.			
SECTION 16: Other Information			
Updated: January 7, 2016			

LESAFFRE YEAST CORPORATION

SAF Instant® Yeast– Red Label

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION: SAF-Instant® Yeast is a bakers dry yeast (<i>Saccharomyces cerevisiae</i>) vacuum-packed in foil pouches. Instant yeast derives its name from its ability to rapidly rehydrate in water or when added directly into a dough. Specifically formulated for: Bagels, Crackers, Croissants, Donuts, English Muffins, Flat Breads, Hearth Breads, Pan Breads, Pizza Crusts Although its functional properties are improved over active dry yeast, it falls under that Standard of Identity.					
REGULATORY: All materials shall be of edible grade, clean, sound, wholesome and free from extraneous matter. Product shall be prepared following Good Manufacturing Practices and shall comply with the Federal Food, Drug, and Cosmetic Act of 1938, as amended and with regulations issued pursuant to this act.					
INGREDIENT STATEMENT: Yeast, sorbitan monostearate, ascorbic acid					
ANALYTICAL STANDARDS:					
Parameter	Specification	Test Method Reference			
Dry Matter	94-96 %	AOAC 27.8.03 961.06			
Gassing Power	118-142	AACC 89-01			
MICROBIOLOGICAL STANDARDS:					
Parameter	Specification	Test Method Reference			
Salmonella	Neg / Class III	BAM CH 5			
Coliform	< 100 CFU /g	BAM CH 4			
E. Coli	<10 CFU / g	BAM CH 4			
PACKAGING INFORMATION:					
Item Number	Units per Case	Case Dimensions			Cubic Feet
		Height	Length	Width	
31105	10kg	12.5"	11.25"	7.75"	0.63
31150	50 lb	20 ¼"	15 ½"	7 ¼"	1.3
15909	20 – 1 lb	9 13/16"	13 ½"	7 5/8"	0.6
41305	64/113g	4.5"	14.375"	12"	0.45
31200	20/ 500g	10.5"	13.5"	7.75"	0.63
PALLET INFORMATION:					
Item Number	Pallet Configuration	Pallet Dimensions			Cubic Feet
		Height	Length	Width	
31105	99 Cases (4 layers of 12, 3 layers of 17)	72"	48"	40"	80
31150	45 Cases (5 layers of 6, 3 layers of 5)	67"	48"	40"	74
15909	105 Cases (7 layers of 15)	59"	48"	40"	65
41305	143 Cases (11 layers of 13)	64"	48"	40"	71
31200	105 Cases (7 layers of 15)	58.5"	51.0"	42"	72.5

SHELF LIFE & STORAGE:
SAF Instant [®] Yeast has a Shelf life of 24 Months if stored at < 80° F
KOSHER:
SAF Instant [®] Yeast is certified as Kosher-Pareve by KOF-K
LOT CODING:
Lot coding on the product cases consists of 2 lines of information. The first line indicates date of production and the production sequence. The second line indicates the best used by date and the facilities internal coding which is not part of the product's lot code. Below is a detailed explanation of this. First line: P 0115 LOT 12345/2 indicates the lot was produced in January 2015 and the 5 digit production sequence "/2" indicates number of production/fermentations in a blend. E 01 15 6011IB0201 0115 indicates the "Best Used By" date of January 2015. The alphanumeric code is the producing facility's internal product code
GMO STATEMENT
Certified GMO Free by Green Star. Non-GMO following EEC regulations. Contains no GMO enzymes, have not been solvent-extracted, synthetically preserved or irradiated. Contain no artificial flavors or colors. There was no sewer sludge, petrochemical substrate, or sulfite waste liquor involved with any step of production.
BSE:
No animal products used in manufacturing process or raw materials
PRESERVATIVES:
No preservatives present in product
VEGETARIAN STATUS:
Acceptable for "Vegan" diets
GLUTEN:
Gluten Free
COUNTRY OF ORIGIN:
Mexico
GMPs:
Food GMPs
FOOD DEFENSE:
Facilities are registered with the FDA and are in compliance with FDA Guidelines relating to Food Security
USAGE:
Varies with application or intended use. As a starting point, replace active dry yeast with ¾ the amount of SAF-Instant [®] Yeast or 25 percent less for equivalent fermenting power. SAF-Instant [®] Yeast will replace compressed yeast on an average at 33-40 percent of compressed yeast levels. When converting from compressed yeast, extra water is required to be added to the dough, approximately double the weight of the yeast.

01/16

The information herein is true and accurate to the best of our knowledge. However, this data sheet is not to be considered as guarantee expressed or implied, or as a condition of sale of this product

LESAFFRE YEAST CORPORATION

NUTRIENT INFORMATION

PRODUCT NAME	SAF Instant® – Red
PRODUCT CODE (S)	15909, 31105, 31150, 41305
COMPANY	Lesaffre Yeast Corporation
ADDRESS	7475 West Main St Milwaukee, WI 53214

TYPICAL ANALYSIS

Per 100g “As Is”

Calories	390	kcal	Fat	6	g
Moisture	5	g	Saturated	2	g
Protein	50	g	Unsaturated	4	g
Ash	6	g	Monounsaturated	4	g
Carbohydrates	33	g	Polyunsaturated	0	g
Complex	33	g	Trans Fatty Acids	0	g
Sugars	0	g	Cholesterol	0	mg
Dietary Fiber	27	g	Iron	5	mg
Soluble		g	Calcium	45	mg
Insoluble		g	Sodium	75	mg
Vitamin A	0	ug RE	Potassium	1700	mg
Vitamin C	300	mg	Phosphorous	2400	mg
Thiamin	12	mg			
Niacin	50	mg NE			
Riboflavin	5	mg			

Ingredient Statement: Yeast, sorbitan monostearate, ascorbic acid

01/16

7475 West Main St Milwaukee, WI 53214

LESAFFRE YEAST CORPORATION

ALLERGEN & SENSITIVE COMPONENTS

PRODUCT NAME	SAF Instant® Red Label			
PRODUCT CODES	15909, 31105, 31150, 41305, 41822			
ALLERGEN & SENSITIVE COMPONENT	PRESENT IN PROD		PRESENT ON SAME LINE	
	YES	NO	YES	NO
MILK PRODUCTS (butter, casein, cheese, whey, nougat, malted milk, sour cream, yogurt, etc.)		X		X
EGG PRODUCTS (mayonnaise, meringue, ovalbumin, etc.)		X		X
FISH any type		X		X
SHELL FISH (crustaceans, mollusks, shrimp, crab, lobster, oyster, clam, scallop, crayfish, etc.)		X		X
TREE NUTS (almond, cashew, hazelnut, macadamia, pecan, pine, pistachio, walnut, etc.)		X		X
WHEAT PRODUCTS (bran, bread crumbs, cracker meal, farina, graham flour, wheat germ, gluten etc.)		X		X
PEANUTS		X		X
SOYBEAN PRODUCTS (tofu, miso, soy-derived vegetable protein, etc.)		X		X
BARLEY PRODUCTS		X		X
BHA, BHT		X		X
CELERY (root, leaves, stalk)		X		X
CHOCOLATE PRODUCTS		X		X
FD&C COLORS (Yellow #5, etc.)		X		X
HYDROLYZED ANIMAL PROTEIN		X		X
HYDROLYZED PLANT PROTEIN		X		X
3-MCPD (MONOCHLOROPROPYLDIOL)		X		X
MEAT & MEAT DERIVATIVES (beef, pork)		X		X
MONOSODIUM GLUTAMATE		X		X
OAT PRODUCTS		X		X
RYE PRODUCTS		X		X
SEEDS (cottonseed, poppy, sesame, sunflower, mustard, etc.)		X		X
SULFITES		X		X



There are no allergens present in our yeast manufacturing facilities. Allergens present in our dough conditioner blending operation are kept in separate buildings.

01/16

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** WB 7223 black / schwarz
- **Article number:** 2001924
- **Registration number**
The ingredients of this ink have been pre-registered according to 1907/2006/EC (REACH)
- **Relevant identified uses of the substance or mixture and uses advised against**
Currently no such applications are identified
- **Application of the substance / the preparation** dry erase whiteboard ink
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
School Specialty
W6316 Design Drive Greenville, WI 54942
Ph#1-888-388-3224
Fax#1-888-388-6344
Email: orders@schoolspecialty.com
Website: www.schoolspecialty.com

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 F; Highly flammable
R11: Highly flammable.
R67: Vapours may cause drowsiness and dizziness.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Has a narcotizing effect.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**
 F Highly flammable
- **Risk phrases:**
11 Highly flammable.
67 Vapours may cause drowsiness and dizziness.
- **Safety phrases:**
2 Keep out of the reach of children.
7/9 Keep container tightly closed and in a well-ventilated place.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
46 If swallowed, seek medical advice immediately and show this container or label.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
Mixture of the following substances, containing non-hazardous substances and colouring agents.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2011
Revision: 05.04.2011
Version number 17

Trade name: WB 7223 black / schwarz

(Contd. of page 1)

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6	ethanol F R11 Flam. Liq. 2, H225	50-100%
CAS: 107-98-2 EINECS: 203-539-1	1-Methoxy-2-propanol R10-67 Flam. Liq. 3, H226; STOT SE 3, H336	10-25%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
Water
Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Not applicable
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.

(Contd. on page 3)

EU

Safety data sheet

according to 1907/2006/EC, Article 31

Trade name: WB 7223 black / schwarz

(Contd. of page 2)

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

107-98-2 1-Methoxy-2-propanol (10-25%)

IOELV	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin
-------	---

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Fluid

Colour:

According to product specification

- **Odour:**

Product specific

- **Odour threshold:**

Not determined.

- **Important information on protection of health and environment, and on safety.**

-

- **pH-value:**

Not determined.

- **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

78°C

- **Flash point:**

13°C

- **Flammability (solid, gaseous):**

Not applicable.

- **Ignition temperature:**

287°C

- **Decomposition temperature:**

Not determined.

- **Self-igniting:**

Product is not selfigniting.

- **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2011
Revision: 05.04.2011
Version number 17

Trade name: WB 7223 black / schwarz

(Contd. of page 3)

· Explosion limits:	
Lower:	1,7 Vol %
Upper:	15,0 Vol %
· Vapour pressure at 20°C:	59 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Partly miscible.
· Segregation coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20°C:	9 s (DIN 53211/4)
· Solvent content:	
Organic solvents:	77,4 %
Solids content:	5,3 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
----------	---

(Contd. on page 5)

EU

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2011
Revision: 05.04.2011
Version number 17

Trade name: WB 7223 black / schwarz

(Contd. of page 4)

08 01 00 wastes from MFSU and removal of paint and varnish

08 01 13* sludges from paint or varnish containing organic solvents or other dangerous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1263
- **Packaging group:** II
- **Hazard label** 3
- **UN proper shipping name:** 1263 PAINT
- **Limited quantities (LQ)** 5L
- **Tunnel restriction code** D/E

- Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1263
- **Label** 3
- **Packaging group:** II
- **EMS Number:** F-E, S-E
- **Marine pollutant:** No
- **Proper shipping name:** PAINT

- Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label** 3
- **Packaging group:** II
- **Proper shipping name:** PAINT

- **Special precautions for user** Warning: Flammable liquids.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
NK	50-100

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

(Contd. on page 6)

EU

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 05.04.2011
Revision: 05.04.2011
Version number 17

Trade name: *WB 7223 black / schwarz*

(Contd. of page 5)

R10 Flammable.

R11 Highly flammable.

R67 Vapours may cause drowsiness and dizziness.

· * **Data compared to the previous version altered.**

EU

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

1 Identification

- **Product Identifier**
- **Trade name: Bulk Deicing Salt**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description** Deicing Salt
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Central Salt LLC
385 Airport Road, Suite 108
Elgin, IL 60123 USA
1-847-608-8130 (For product information)
1-847-608-8135 (Fax)
- **Emergency telephone number:** 1-620-257-5626 (For emergencies)

* 2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS07

Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
STOT SE 3 H335 May cause respiratory irritation.
Eye Irrit. 2B H320 Causes eye irritation.

- **Label elements:**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS07

- **Signal word:** Warning

- **Hazard-determining components of labeling:**

Sodium Chloride

- **Hazard statements:**

Harmful if inhaled.
Causes skin and eye irritation.
May cause respiratory irritation.

- **Precautionary statements:**

Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves.
Wash thoroughly after handling.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

Call a POISON CENTER/doctor if you feel unwell.
 If skin irritation occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 IF ON SKIN: Wash with plenty of water.
 Take off contaminated clothing and wash it before reuse.
 Store locked up.
 Store in a well-ventilated place. Keep container tightly closed.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

*** 3 Composition/Information on Ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture: consisting of the following components.

· Dangerous Components:		
CAS: 7647-14-5	Sodium Chloride	92-98%
RTECS: VZ4725000	⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	

*** 4 First-Aid Measures**

- **Description of first aid measures:**
- **After inhalation:**
 Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
- **After skin contact:**
 Wash with soap and water.
 Get medical attention if symptoms occur.
- **After eye contact:**
 If contact with eyes, remove contact lenses if worn and immediately flush eyes with plenty of water for at least 15 minutes lifting upper and lower eyelids occasionally. GET MEDICAL ATTENTION IF IRRITATION OR BLURRED VISION OCCURS.
- **After swallowing:**
 Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION IMMEDIATELY.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
 No further relevant information available.

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

5 Fire-Fighting Measures

- **Extinguishing media:**
- **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use the appropriate tools to collect the material and dispose of it in an approved waste disposal container. Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes, skin and clothing. If ingested, seek medical advice immediately and show the container or the label. Use with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** See Section 10 (Incompatible materials)
- **Further information about storage conditions:** No further relevant information available..
- **Specific end use(s):** No further relevant information available.

* 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

Breathing equipment:

Not normally required with this product. If the exposure limit is exceeded, and engineering controls are not feasible, see 29CFR1910.134 for details.

Protection of hands: Not required.

Eye protection:



Safety glasses

9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Crystalline powder

Color: White

Odor: Slight

Odor threshold: Not determined.

pH-value @ 20 °C (68 °F): 7

Change in condition

Melting point/Melting range: 801 °C (1474 °F)

Boiling point/Boiling range: 1413 °C (2575 °F)

Flash point: None

Flammability (solid, gaseous): Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined.

Auto igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

Vapor pressure: Not applicable.

Density @ 20 °C (68 °F): 2.165 g/cm³ (18.067 lbs/gal)

Bulk density @ 20 °C (68 °F): 800-1600 kg/m³

Relative density: Not determined.

Vapor density: Not applicable.

Evaporation rate: Not applicable.

Solubility in / Miscibility with:

Water @ 20 °C (68 °F): 358 g/l

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

· **Other information:** No further relevant information available.

* **10 Stability and Reactivity**

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** When heated to decomposition it emits toxic fumes.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** High temperatures.
- **Incompatible materials:** Reactive with oxidizing agents, metals, acids.
- **Hazardous decomposition products:** No dangerous decomposition products known.

* **11 Toxicological Information**

· **Information on toxicological effects:**

· **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
7647-14-5 Sodium Chloride		
Oral	LD50	3000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)

· **Primary irritant effect:**

· **On the skin:** No irritating effect.

· **On the eye:** Irritating effect.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories:**

· IARC (International Agency for Research on Cancer):
None of the ingredients are listed.

· NTP (National Toxicology Program):
None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

· **Toxicity:**

· Aquatic toxicity:
7647-14-5 Sodium Chloride
EC50 1661 mg/l (Water flea)

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

- **UN-Number:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

*15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	None of the ingredients are listed.
Section 313 (Specific toxic chemical listings):	None of the ingredients are listed.
TSCA (Toxic Substances Control Act):	All ingredients are listed.
California Proposition 65:	
Chemicals known to cause cancer:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:	None of the ingredients are listed.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

· **Carcinogenic categories:**
· **EPA (Environmental Protection Agency):**
None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH):**
None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**
None of the ingredients are listed.

· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



GHS07

· **Signal word:** Warning

· **Hazard-determining components of labeling:**

Sodium Chloride

· **Hazard statements:**

Harmful if inhaled.

Causes skin and eye irritation.

May cause respiratory irritation.

· **Precautionary statements:**

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves.

Wash thoroughly after handling.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/12/2015

Reviewed on 10/08/2015

Trade name: Bulk Deicing Salt

· State Right to Know:		
CAS: 7647-14-5	Sodium Chloride	92-98%
RTECS: VZ4725000	⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	
All ingredients are listed.		

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of preparation / last revision:** 10/12/2015 / 1

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

SAFETY DATA SHEET

Section 1: Identification

Product identifier used on the label;

Product name: Air-activated heating packs of various styles
HotHands: Hand warmer, Hand warmer camo, Hand warmer game day,
Hand warmer turbo, Lap warmer, Super warmer, Toe warmer, Insole foot
warmer, Clothing Adhesive warmer, Body warmer,
MediHeat: Direct skin warmer, Slick Back warmer, Clothing Adhesive
warmer
Grabber: Hand warmer, Hand warmer camo, Hand warmer game day,
Mega warmer, Toe warmer, Insole foot warmer, Clothing Adhesive
warmer, Body warmer

Other means of identification;

Heating pad wrapped in plastic film, Air-activated disposable warmers

Recommended use of the chemical and restrictions on use; Recommended

use: Air-Activated Disposable Warmer

Restrictions on use: No Applicable Information Available

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party;

Name: KOBAYASHI Healthcare International Inc.
Department in Charge: Consumer Relations Dept.
Address: 245 Kraft drive, Dalton, GA 30721, USA
Telephone number: 7062261800
Fax number: 7065297705
e-mail address: kcp_compliance@kobayashi.com

Emergency phone number

7062261800

Section 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200; Physical

Hazards

Not classified

Health Hazards

Not classified

Environmental Hazards

Not classified

Other Hazards

No Applicable Information Available

Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200;

Symbol(s)	No Applicable Information Available
Signal word	No Applicable Information Available
Hazard Statement(s)	No Applicable Information Available
Precautionary Statement(s)	No Applicable Information Available

Description of any hazards not otherwise classified;

General caution: powdered materials may ignite, under certain conditions. May generate heat if the contents removed from the bag.

Ingredient with unknown acute toxicity in the mixture

No Applicable Information Available

Section 3: Composition/information on ingredients

Compositions (contents of the product)*

Chemical name	CAS No.	Concentration/concentration ranges (wt %)
Iron powder	7439-89-6	50-60
Activated charcoal	7440-44-0	5-10
Vermiculite	1318-00-9	5-10
Water-absorbent resin	9003-04-7	1-5
Sodium chloride	7647-14-5	1-5
Water	7732-18-5	30-40

*This product consists of the non-woven fabric and the heating element.

Contents of the heating element are described in this table. Exact concentrations have been withheld as a trade secret.

Section 4: First-aid measures

Necessary first-aid measures by relevant routes of exposure;

IF INHALED	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms continue, call a doctor/physician.
IF ON SKIN	Rinse with plenty of water and soap. If symptoms continue, call a doctor/physician.
IF IN EYES	Immediately rinse cautiously with water for 15 - 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms continue, call a doctor/physician.
IF SWALLOWED	Rinse mouth. Immediately get medical advice/attention.

Most important symptoms/effects, acute and delayed;

No Applicable Information Available

Indication of immediate medical attention and special treatment needed, if necessary; No

Applicable Information Available

Section 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media; Suitable extinguishing media:

Use dry sand, dry chemical powder, fire foam or carbon dioxide.

Unsuitable extinguishing media

Do not use water to extinguish fire.

Specific hazards arising from the chemical;

General caution: powdered materials may ignite, under certain conditions.

Special protective equipment and precautions for fire-fighters; Cut off

any ignition sources and extinguish with an appropriate agent. Take action upwind from the source.

Section 6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures;

Avoid release into the environment because product may cause local effects.

Methods and materials for containment and cleaning up;

Sweep up materials or vacuum using a vacuum cleaner so as not to cause dust, then place material in a container of water.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent flow of material into drains, sewers, basements or closed areas.

Section 7: Handling and storage

Precautions for safe handling Protective measures:

Do not use for other than recommended use.
Avoid the generation of dust.

Advice on general occupational hygiene:

Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities Technical measures:

Take precautionary measures against static discharge.

Incompatible materials:

Oxidizing agents

Conditions for safe storage:

Avoid storing in direct sunlight, high temperature and high humidity. Store at room temperature.

Packing material:

Use a sealed container without damage or leakage.

Section 8: Exposure controls/personal protection

Occupational Exposure Limits;

OSHA PEL-TWA	5 mg/m ³ (Respirable fraction)
	15 mg/m ³ (Total dust)
ACGIH TLV (2014)	3 mg/m ³ (Insoluble respirable particles not other specified)
	10 mg/m ³ (Insoluble inhalable particles not other specified)

Appropriate engineering controls;

In a work place where dusts generate, ensure to use sealed instrument or local ventilation.

Individual protection measures, such as personal protective equipment;

Respiratory protection	In case of dust generation, wear appropriate protective mask or air aspirator as required.
Hand protection	If hand contact is possible, wear protective gloves.
Eye protection	Wear safety glasses or goggles if in eyes.
Skin and body protection	Wear protective clothing and apron if necessary.

Section 9: Physical and chemical properties

Appearance (Physical state, color, etc.)	White sheet (contents: black)
Odor	odorless
Odor threshold	No Applicable Information Available
pH	unmeasurable
Melting point/freezing point	No Applicable Information Available
Initial boiling point and boiling range	No Applicable Information Available
Flash point	No Applicable Information Available
Evaporation rate	No Applicable Information Available
Flammability (solid, gas)	No Applicable Information Available
Upper/lower flammability or explosive limits	No Applicable Information Available
Vapor pressure	No Applicable Information Available
Vapor density	No Applicable Information Available
Relative density	No Applicable Information Available
Solubility (ies)	No Applicable Information Available
Partition coefficient: <i>n</i> -octanol/water	No Applicable Information Available
Auto-ignition temperature	No Applicable Information Available
Decomposition temperature	No Applicable Information Available
Viscosity	No Applicable Information Available

Other information

No Applicable Information Available

Section 10: Stability and reactivity

Reactivity

Stable under normal handling condition.

Chemical stability

Stable under normal handling condition.

Possibility of hazardous reactions

No hazardous reaction expected under normal handling.

Conditions to avoid

Avoid storing in direct sunlight, high temperature and high humidity.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

In case of fire, toxic decomposition products may be generated.

Section 11: Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin, and eye contact);

No Applicable Information Available

Symptoms related to the physical, chemical and toxicological characteristics; Information on product:

Acute toxicity (oral): Rat LD₅₀ > 2,000 mg/kg

Information on ingredients:

No Applicable Information Available

Delayed and immediate effects and also chronic effects from short- and long-term exposure; No

Applicable Information Available

Numerical measures of toxicity (such as acute toxicity estimates);

No Applicable Information Available

Whether the chemical is listed in the NTP Report on Carcinogens or has been found to be a potential carcinogen in the IARC Monographs, or by OSHA;

IARC: Not listed

NTP Report: Not listed

OSHA: Not listed

Section 12: Ecological information

Ecotoxicity:

Information on product: No Applicable Information Available

Information on ingredients: No Applicable Information Available

Persistence and degradability:

Information on product: No Applicable Information Available

Information on ingredients: No Applicable Information Available

Bioaccumulative potential:

Information on product: No Applicable Information Available

Information on ingredients: No Applicable Information Available

Mobility in soil:

Information on product: No Applicable Information Available

Information on ingredients: No Applicable Information Available

Other adverse effects:

No information

Section 13: Disposal considerations**Waste treatment methods**

Dispose of waste in accordance with applicable local, regional and international regulations and standards.

When disposing, consult a certificated waste trader or local offices if they deal with the waste.

Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.

Contents should be removed completely prior to disposal of empty containers.

Section 14: Transport information

UN number	No Applicable Information Available
UN proper shipping name	No Applicable Information Available
Transport hazard class(es)	No Applicable Information Available
Packing group	No Applicable Information Available
Environmental hazards	No Applicable Information Available
Transport in bulk according to Annex II of MARPOL 73/78 and IBC code	No Applicable Information Available

Special precautions for user

When transporting, avoid direct sunlight. Confirm no leakage to containers. When loading, prevent containers from falling, dropping or damaging. Take preventive measures of collapse.

Section 15: Regulatory information

OSHA:	Not hazardous chemical
TSCA inventory:	All ingredients except vermiculite in this product are listed on the TSCA Inventory.
TSCA SNUR:	Not listed
SARA Title III:	Section 302 (Extremely Hazardous Substances): Not listed Section 304 (Hazardous Substances): Not listed Section 313 (TRI Chemicals): Not listed
Clean Air Act:	This product does not contain any substances regulated as hazardous air pollutants under Section 112 of the Clean Air Act.
Clean Water Act:	This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act.

Section 16: Other information, including date of preparation or last revision

Update history:

Date of issue: April 10, 2015
Date of revision: December 08, 2021

References:

Information of KOBAYASHI Pharmaceutical Co., Ltd.
ACGIH, American Conference of Governmental Industrial Hygienists (2014) TLVs and BEIs.

[Disclaimer]

This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.