SAFETY DATA SHEET

M1251 - ANSI - EN



LIQUID POTASSIUM CARBONATE

SDS No.: M1251 SDS Revision Date: 02-Oct-2014

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification: Armand Products Company

469 North Harrison Street Princeton, NJ 08543-5297

24 Hour Emergency Telephone

Number:

1-800-733-3665 or 1-972-404-3228 (USA); CHEMTREC (within USA and Canada): 1-800-424-9300; CHEMTREC (outside USA and Canada): +1

703-527-3887; CHEMTREC Contract No: CCN16186

To Request an SDS: MSDS@oxy.com or 1-972-404-3245

Customer Service: 1-800-522-0540 or 1-609-683-5900

Product Identifier: LIQUID POTASSIUM CARBONATE

Trade Name: Potassium Carbonate

Synonyms: Pearlash, Potash, PotCarb

Product Use: Process cleaner, Cleaner

Uses Advised Against: None identified.

2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200).

EMERGENCY OVERVIEW:

Color: Colorless

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Physical stateLiquidAppearance:ClearOdor:Odorless

Signal Word: <u>DANGER</u>

MAJOR HEALTH HAZARDS: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE PERMANENT EYE DAMAGE. HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE RESPIRATORY TRACT IRRITATION.

PHYSICAL HAZARDS: MAY BE CORROSIVE TO METALS.

AQUATIC TOXICITY: HARMFUL TO AQUATIC LIFE. May increase pH of waterways and adversely affect aquatic

PRECAUTIONARY STATEMENTS: Keep only in original container. Avoid contact with skin and eyes. Wear protective gloves, protective clothing, eye, and face protection. Wash skin and contaminated clothing thoroughly after handling. Avoid breathing mist or spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Absorb spillage to prevent material damage.

GHS CLASSIFICATION:

GHS: PHYSICAL HAZARDS:	Corrosive to Metals		
GHS: CONTACT HAZARD - SKIN:	: Category 1B - Causes severe skin burns and eye damage		
GHS: CONTACT HAZARD - EYE:	Category 2A - Causes serious eye irritation		
	Not classified as a skin sensitizer per GHS criteria This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction		
GHS: ACUTE TOXICITY -	Category 4 - Harmful if inhaled		
INHALATION:			
GHS: ACUTE TOXICITY - ORAL:	Category 4 - Harmful if swallowed		
GHS: TARGET ORGAN	Category 3 - May cause respiratory tract irritation		
TOXICITY (SINGLE EXPOSURE):			
	Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC or OSHA.		
GHS: HAZARDOUS TO AQUATIC	Category 3 - Harmful to aquatic life		
ENVIRONMENT - ACUTE			
HAZARD:			

UNKNOWN ACUTE TOXICITY:

Not applicable. This product was tested as a whole. This information only pertains to untested mixtures.

GHS SYMBOL:

Corrosive, Exclamation mark





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GHS SIGNAL WORD: DANGER

GHS HAZARD STATEMENTS:

GHS - Physical Hazard Statement(s)

May be corrosive to metals

GHS - Health Hazard Statement(s)

Causes severe skin burns and eye damage Causes serious eye irritation Harmful if swallowed Harmful if inhaled May cause respiratory irritation

GHS - Environmental Hazard Statement(s)

Harmful to aquatic life

GHS - Precautionary Statement(s) - Prevention

Do not breathe mist, vapors, or spray
Wear protective gloves, protective clothing, eye, and face protection
Wash thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Keep only in original container

GHS - Precautionary Statement(s) - Response

IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower Take off contaminated clothing and wash it before reuse

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 SWALLOWED: Rinse mouth. Do NOT induce vomiting

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

Call a POISON CENTER or doctor/physician if you feel unwell

Specific treatment (see First Aid information on product label and/or Section 4 of the SDS)

Absorb spillage to prevent material damage

GHS - Precautionary Statement(s) - Storage

Store in corrosive resistant container with a resistant inner liner Store in a well-ventilated place. Keep container tightly closed Store locked up

GHS - Precautionary Statement(s) - Disposal

Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations

Hazards Not Otherwise Classified (HNOC)

None Known

See Section 11: TOXICOLOGICAL INFORMATION

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Pearlash, Potash, PotCarb

Component	Percent [%]	CAS Number
Water	48 - 70	7732-18-5
Potassium Carbonate	30 - 52	584-08-7

4. FIRST AID MEASURES

INHALATION: If inhaled and adverse effects occur, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

SKIN CONTACT: If on skin or hair, immediately flush contaminated areas with water. Remove contaminated clothing, jewelry and shoes. Wash contaminated areas with large amounts of water. GET MEDICAL ATTENTION IMMEDIATELY. SPECIFIC TREATMENT: Irrigation with water. Wash contaminated clothing before re-use.

EYE CONTACT: Immediately flush contaminated eyes with a directed stream of water for as long as possible. Remove contact lenses, if present and easy to do. Continue rinsing. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: If swallowed: Rinse mouth. Do NOT induce vomiting. Give water as tolerated. Never give anything by mouth to an unconscious or convulsive person. If vomiting occurs spontaneously, keep airway clear. If you feel unwell, contact a poison center or doctor/physician.

Acute Symptoms/Effects: Listed below.

Inhalation (Breathing): Respiratory Irritation: Upper airway irritation, may cause cough, redness of mouth and upper airways.

Skin: Skin Corrosion: Skin exposure may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

Eye: Eye Irritation: Exposure to eyes may cause severe irritation and redness to the eye lids, conjunctiva. There is potential for permanent and severe eye damage if not treated immediately.

Ingestion (Swallowing): Gastrointestinal System Effects: Slightly toxic on ingestion. May be severely irritating to gastrointestinal tract possibly causing oral, esophageal, glottis redness, irritation, ulceration, edema, and stomach and intestinal irritation and burns. Ingestion of large quantities may cause ulceration, vomiting, shock, and death.

Delayed Symptoms/Effects:

- Repeated or prolonged contact may result in dermatitis

Interaction with Other Chemicals Which Enhance Toxicity: None known.

Medical Conditions Aggravated by Exposure: May aggravate preexisting conditions, such as: eye disorders that decrease tear production or have reduced integrity of the eye; skin disorders that compromise the integrity of the skin.

Protection of First-Aiders: Avoid contact with skin and eyes. Do not breathe dust. Do not ingest. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

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5. FIRE-FIGHTING MEASURES

Fire Hazard: Negligible fire hazard.

Extinguishing Media: Use extinguishing medium as appropriate for surrounding fire.

Fire Fighting: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Hazardous Combustion Products: Oxides of carbon, Potassium oxides

Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Not sensitive.

Lower Flammability Level (air): Not flammable

Upper Flammability Level (air): Not flammable

Flash point: Not flammable

Auto-ignition Temperature: No information available

GHS: PHYSICAL HAZARDS:

- Corrosive to Metals

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Avoid contact with skin and eyes. Avoid breathing mist, vapor, or spray. Wash thoroughly after handling. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the SDS.

Methods and Materials for Containment and Cleaning Up:

Completely contain spilled materials with dikes, sandbags, etc. Liquid material may be removed with a properly rated vacuum truck. Flush spill area with water, if appropriate.

Environmental Precautions:

Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

7. HANDLING AND STORAGE

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Precautions for Safe Handling:

Avoid contact with skin and eyes. Avoid breathing vapor, mist, or spray. Wash thoroughly after handling. When using, do not eat, drink or smoke. Do not reuse containers. Use only in well-ventilated areas.

Safe Storage Conditions:

Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, dry area. Store above freezing. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet). If possible, store in original container. If not possible, store in a corrosion resistant container with a resistant inner liner.

Incompatibilities/ Materials to Avoid:

occupational exposure limits (OEL's).

Acids, Lime, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys

GHS: PHYSICAL HAZARDS:

- Corrosive to Metals

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure Limit(s): This product does not contain any components that have non-regulatory

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit

NON-REGULATORY EXPOSURE LIMIT(S): As listed below.

OXY REL	Recommended Exposure Limit - 2 mg/m³ recommended Time Weighted Average	
8 hr TWA	 - 8 hour (internal Occupational Exposure Limit) (Inhalable Particulate) 	

- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).
- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

ENGINEERING CONTROLS: Provide local exhaust ventilation where dust or mist may be generated. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Wear safety glasses with side-shields. If eye contact is likely, wear chemical resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and Body Protection: Wear protective clothing to minimize skin contact. Wear chemical resistant clothing and rubber boots when potential for contact with the material exists. Contaminated clothing should be removed and laundered before reuse. Discard footwear which cannot be decontaminated. Always place pants legs over boots.

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Hand Protection: Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Protective Material Types: Butyl rubber, Natural rubber, Neoprene, Nitrile, Tychem® SL

Respiratory Protection: A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. When an air purifying respirator is not adequate for spills and/or emergencies of unknown concentrations, an approved self-contained breathing apparatus operated in the pressure demand mode is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Liquid Appearance: Clear Color: Colorless Odorless Odor: Odor Threshold [ppm]: Not applicable.

Molecular Weight: 138.21 Molecular Formula: K2CO3

Decomposition Temperature: 212 - 392 °F (100 - 200 °C) **Boiling Point/Range:** 221-241 °F (105-116 °C) Freezing Point/Range: -5 to 62 °F (-21 to 17 °C). Not applicable to liquids **Melting Point/Range:** 9.7 - 15.3 mm Hg @ 20.5 °C **Vapor Pressure:**

No data available Vapor Density (air=1): 1.30 - 1.57

Relative Density - Specific

Gravity (water=1):

Density: Not applicable **Bulk Density:** Not applicable

Water Solubility: 100% pH: 12.6 - 13.8 Volatility: No data available **Evaporation Rate (ether=1):** No data available **Partition Coefficient** No data available

(n-octanol/water):

Flash point: Not flammable Flammability (solid, gas): Not flammable Lower Flammability Level (air): Not flammable **Upper Flammability Level (air):** Not flammable

No information available **Auto-ignition Temperature:**

Viscosity: No data available

10. STABILITY AND REACTIVITY

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Reactivity: Not reactive under normal temperatures and pressures.

Chemical Stability: Stable at normal temperatures and pressures.

Possibility of Hazardous Reactions:

Avoid contact with lime to prevent formation of corrosive potassium hydroxide (KOH).

Conditions to Avoid:

(e.g., static discharge, shock, or vibration) -. None known.

Incompatibilities/ Materials to Avoid:

Acids, Lime, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys

Hazardous Decomposition Products: Carbon oxides, Potassium oxides

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

PRODUCT TOXICITY DATA: LIQUID POTASSIUM CARBONATE

LD50 Oral:	LD50 Dermal:	LC50 Inhalation:		
1,870 mg/kg (Rat)	>2000 mg/kg (Rabbit)	> 4.96 mg/l (rat/4.5 hour)		

COMPONENT TOXICITY DATA:

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Water 7732-18-5	90 mL/kg (Rat)		
Potassium Carbonate 584-08-7	1870 mg/kg (Rat)		

POTENTIAL HEALTH EFFECTS:

Eye contact: Eye exposure may cause severe irritation and redness to the eye lids, conjunctiva.

Untreated, prolonged eye contact can cause permanent and severe eye damage.

Skin contact: Exposure to skin may cause redness, irritation, burning sensation, swelling, blister

formation, first, second, or third degree burns.

Inhalation: Inhalation of this material may cause upper airway irritation, cough, redness of

mouth and upper airways.

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Ingestion: Ingestion of this material may cause oral, esophageal, glottis redness, irritation,

ulceration, edema, and stomach and intestinal irritation and burns. Ingesting massive amounts may cause ulcerations, vomiting, and death from shock.

Chronic Effects: Repeated or prolonged contact may result in dermatitis.

SIGNS AND SYMPTOMS OF EXPOSURE:

Listed below.

Inhalation (Breathing): Respiratory Irritation: Upper airway irritation, may cause cough, redness of mouth and upper airways.

Skin: Skin Corrosion: Skin exposure may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

Eye: Eye Irritation: Exposure to eyes may cause severe irritation and redness to the eye lids, conjunctiva. There is potential for permanent and severe eye damage if not treated immediately.

Ingestion (Swallowing): Gastrointestinal System Effects: Slightly toxic on ingestion. May be severely irritating to gastrointestinal tract possibly causing oral, esophageal, glottis redness, irritation, ulceration, edema, and stomach and intestinal irritation and burns. Ingestion of large quantities may cause ulceration, vomiting, shock, and death.

TOXICITY:

This material when applied to the skin of guinea pigs did not elicit any dermal sensitization reaction.

Interaction with Other Chemicals Which Enhance Toxicity: None known

GHS HEALTH HAZARDS:

Listed below

GHS: ACUTE TOXICITY - ORAL: Category 4 - Harmful if swallowed

GHS: ACUTE TOXICITY - Category 4 - Harmful if inhaled.

INHALATION:

GHS: CONTACT HAZARD - Category 1B - Causes severe skin burns and eye damage

SKIN:

GHS: CONTACT HAZARD - EYE: Category 2A - Causes serious eye irritation

GHS: SENSITIZATION HAZARD: Not classified as a skin sensitizer per GHS criteria. This material when applied to

the skin of guinea pigs did not elicit any dermal sensitization reaction.

GHS: CARCINOGENICITY: Not classified as a carcinogen per GHS criteria. This product is not classified as a

carcinogen by NTP, IARC or OSHA.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):

Category 3 - Respiratory Tract Irritation

MUTAGENIC DATA:

Not classified as a mutagen per GHS criteria. Tested negative in test systems evaluated.

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12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Aquatic Toxicity:

Rainbow trout LC50 = 68 mg/L 96 hours; Bluegill sunfish LC50 = 230 mg/L 96 hours.

Fish Toxicity:

LC50 Bluegill sunfish: 230 mg/L (96 hour) LC50 Rainbow trout: 68 mg/L (96 hour) LC50 Fathead minnow: 940 mg/L (24 hour) LC50 Fathead minnow: 820 mg/L (48 hour) LC50 Fathead minnow: <510 mg/L (96 hour)

Invertebrate Toxicity:

EC50 Daphnia magna: 430 mg/L (48 hour) - hard water EC50 Daphnia pulex: 200 mg/L (48 hour) - soft water

Other Toxicity:

LC50 Ceriodaphnia dubia (water flea): 630 mg/l (24 hour) LC50 Ceriodaphnia dubia (water flea): 630 mg/l (48 hour) LC50 Daphnia magna (water flea): 670 mg/l (24 hour) LC50 Daphnia magna (water flea): 650 mg/l (48 hour)

FATE AND TRANSPORT:

BIODEGRADATION: This material is inorganic and not subject to biodegradation.

PERSISTENCE: This material is believed not to persist in the environment.

BIOCONCENTRATION: This material is not expected to bioconcentrate in organisms.

BIOACCUMULATIVE POTENTIAL: This material is believed not to bioaccumulate. Potassium carbonate is very soluble in water. Therefore the substance does not accumulate in lipophilic tissues of living organisms.

ADDITIONAL ECOLOGICAL INFORMATION: May increase pH of waterways and adversely affect aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste from material:

Reuse or reprocess, if possible. May be subject to disposal regulations. Measure the pH of solutions to determine disposal restrictions. Dispose in accordance with all applicable regulations.

Container Management:

Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

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14. TRANSPORT INFORMATION

LAND TRANSPORT

U.S. DOT 49 CFR 172.101:

UN NUMBER: UN1760

PROPER SHIPPING NAME: Corrosive liquids, n.o.s. (Potassium Carbonate)

HAZARD CLASS/ DIVISION: 8
PACKING GROUP: ||
LABELING REQUIREMENTS: 8

RQ (lbs): Not Applicable

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

UN NUMBER: UN1760

SHIPPING NAME: Corrosive liquids, n.o.s. (Potassium Carbonate)

CLASS OR DIVISION: 8
PACKING/RISK GROUP: ||
LABELING REQUIREMENTS: 8

MARITIME TRANSPORT (IMO / IMDG) Not regulated

15. REGULATORY INFORMATION

U.S. REGULATIONS

OSHA REGULATORY STATUS:

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

Not regulated.

SARA EHS Chemical (40 CFR 355.30)

Not regulated

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):

Acute Health Hazard

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EPCRA SECTION 313 (40 CFR 372.65):

Not regulated.

DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):

No components in this material are regulated under DHS

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):

Not regulated

<u>FDA:</u> This material has Generally Recognized as Safe (GRAS) status under specific FDA regulations. Additional information is available from the Code of Federal Regulations which is accessible on the FDA's website. This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).

NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA): All components are listed or exempt.

TSCA 12(b): This product is not subject to export notification.

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL.

STATE REGULATIONS

There are no applicable state regulations for this product or its components.

California Proposition 65:

This product and its ingredients are not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact OxyChem Technical Services at 1-800-733-1165.

CANADIAN REGULATIONS

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

WHMIS - Classifications of Substances:

- D2B Poisonous and Infectious Material; Materials causing other toxic effects Toxic material
- · E Corrosive material

16. OTHER INFORMATION

Prepared by: OxyChem Corporate HESS - Product Stewardship

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HMIS: (SCALE 0-4) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)

Health Rating: 3 Flammability Rating: 0 Reactivity Rating: 0

NFPA 704 - Hazard Identification Ratings (SCALE 0-4)

Health Rating: 3 Flammability: 0 Reactivity Rating: 0

Reason for Revision:

- Changed the SDS format to meet the GHS requirements of the revised 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
- Updated 24 Hour Emergency Telephone Number: SEE SECTION 1
- Product Identifier has been added or updated: SEE SECTION 1
- Updated Uses Advised Against information: SEE SECTION 1
- Added OSHA Status: SEE SECTION 2
- Emergency Overview was revised: SEE SECTION 2
- Added GHS Information: SEE SECTION 2
- Modified Composition/Information on Ingredients: SEE SECTION 3
- Updated First Aid Measures: SEE SECTION 4
- Modified Fire Fighting Measure Recommendations: SEE SECTION 5
- Revised Accidental Release Measures: SEE SECTION 6
- Revised Handling and Storage Recommendations: SEE SECTION 7
- Revised Exposure Controls/Personal Protection information: SEE SECTION 8
- Updated Physical and Chemical Properties. SEE SECTION 9
- Stability and Reactivity recommendations: SEE SECTION 10
- Toxicological Information has been revised: SEE SECTION 11
- Ecological Information has been modified: SEE SECTION 12
- Updated Disposal Considerations. SEE SECTION 13
- Regulatory Information Changes: SEE SECTION 15
- Added SDS Revision Date: SEE SECTION 16
- HMIS and/or NFPA Rating has changed: SEE SECTION 16

IMPORTANT:

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OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees

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End of Safety Data Sheet

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