Safety Data Sheet
(CAUSTIC SODA BEADS)

1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: .....CAUSTIC SODA BEADS
CHEMICAL NAME/
CLASS/SYNONYMS: ..... Sodium Hydroxide Beads
PRODUCT NUMBER: .....CAUSTIC SODA BEADS
UN/NA NUMBER: 1823
CHEMICAL FAMILY: ..... Sodium salt
CAS NUMBER: 1310-73-2
FORMULA: ..... NaOH

COMPANY: .....JMN Specialties, Inc.
1100 Victory Drive – Westwego, Louisiana USA 70094
Phone (504) 341-3749, Fax (504) 341-5868
www.jmnspecialties.com
EMERGENCY PHONE: .....CALL CHEMTEL: Toll Free US & Canada: (800) 255-3924, Outside USA +01-813-248-0585.
DATE PREPARED: ..... October 2, 2024

2 – HAZARDS IDENTIFICATION

GHS HAZARD CLASSIFICATION:

Physical Hazards
Flammable Liquids: ..... No Hazard Statement established for this Product
Corrosive Liquids: ..... May be corrosive to metals
Health Hazards
Acute Toxicity: ..... Category 3 - Toxic if swallowed, in contact with skin, inhaled
Skin Corrosion/Irritation: ..... Category 1A - Causes severe skin burns and eye damage
Eye Damage/Irritation: ..... Catagory 1 - Causes severe eye damage
Aspiration Hazard: ..... Catagory 1 - May be fatal if swallowed and enters airways
Carcinogen: ..... No Hazard Statement established for this Product
Specific Target Organ
Toxicity Single Exposure ..... Category 3: Respiratory tract irritation (sore throat, cough).
Specific Target Organ
Toxicity Repeated Exposure . The effects of long-term, low-level exposures to this product have not been determined.
Hazardous to the Environment
Aquatic (Acute)..... Category 3
Aquatic (Chronic) ..... Catagory 3
See Section 11 for additional Toxicological information

Safety Data Sheet
(CAUSTIC SODA BEADS)

EMERGENCY OVERVIEW:

Pictograms:

Signal Word (GHS-US): .....DANGER!
Hazard Statements:
Physical Hazards (GHS-US):
H290: May be corrosive to metals
Health Hazards (GHS-US):
H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage.
Environmental Hazards (GHS-US):
H402: Harmful to aquatic life
Precautionary Statements (GHS-US):
P101+102+103: If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use.
P202+233+270+280+281: Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. P264: Wash thoroughly after handling. P260: Do not breathe mist, vapors, spray. P273: Avoid release to the environment.
P233+P403+P405: Keep container tightly closed. Store in a well ventilated place. Store locked up.
Response Statements (GHS-US):
P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. P362+P363: Take off contaminated clothing. Wash contaminated clothing before reuse.
P501: Dispose of contents/container: Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations.

TOTAL VOC's:..... None

3 – COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	PERCENT*	CAS NUMBER
Sodium Hydroxide (bead)	> 98	1310-73-2

*Any concentration shown as a range is to protect confidentiality or is due to batch variation. When not listed, mixtures may contain water [CAS No. 7732-18-5] to 100%.

4 – FIRST-AID MEASURES

BREATHING (INHALATION):…… Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Keep person warm and at rest. Treat symptomatically and supportively. Seek medical attention immediately. Qualified medical personnel should consider administering oxygen.

SWALLOWING (INGESTION):….. Give large amounts of fresh water or milk immediately. Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head below hips to prevent aspiration. Treat symptomatically and supportively. Seek medical attention immediately.

EYES: ..... Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

SKIN (DERMAL): ..... Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.

NOTE TO PHYSICIAN:..... May cause caustic burns to the mouth, throat or stomach if swallowed. After swallowing danger of stomach perforation. On inhalation: Irritation of mucous membrane, coughing and shortness of breath. All treatments should be based on observed signs and symptoms of distress in the patient. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

5 – FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS:..... Fire fighters should wear full protective clothing, including self-contained breathing equipment.

AUTOIGNITION TEMP:.....NA

EXTINGUISHING MEDIA:..... Determined by surrounding material. In case of fire, use water fog, dry chemical, CO_2, or "alcohol" foam. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

SPECIAL FIRE FIGHTING PROCEDURES:..... No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Spilled product may be slippery.

UNUSUAL FIRE AND EXPLOSION HAZARDS:..... Containers may explode from internal pressure if confined to fire. Cool with water spray.

6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: ..... Wear appropriate personal protective equipment before approaching spill site. For small spills, dilute with water to sewer if allowed by local and state regulations. If unable to wash product with water, absorb with inert material (sand or other approved material) and dispose of in accordance with applicable regulations.

WASTE DISPOSAL:..... Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

7 – HANDLING and STORAGE

STORAGE:…… Keep in a tightly closed container, stored in a cool, dry, ventilated area below 44°C (110°F). Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Drum must not be washed out or used for other purposes.

HANDLING:……Avoid contact with eyes, skin and clothing. Do not inhale vapors and fumes. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally. For industrial use only.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

HAZARDOUS INGREDIENT	PEL	TLV-TWA
Sodium Hydroxide (bead)	2 mg/m^3	2 mg/m^3

EXPOSURE CONTROLS:…… Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

RESPIRATORY PROTECTION:..... 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. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

PROTECTIVE CLOTHING:…… Eye/face protection: Wear chemical goggles; face shield (if splashing is possible). **Skin protection:** Chemical resistant, impermeable gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron or chemical suit and chemical resistant boots are recommended.

ADDITONAL MEASURES:…… Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

9 – PHYSICAL / CHEMICAL PROPERITES

BOILING POINT:…… 2534°F (1390°C)
FREEZING POINT:…… NA
FLASHPOINT: ..... Non-flammable material
UPPER FLAME LIMIT (%): .....NA
LOWER FLAME LIMIT (%): .....NA
VAPOR PRESSURE: .....ND
VAPOR DENSITY (AIR=1): .....ND
SPECIFIC GRAVITY: 2.13
pH: .....1% solution 14.0
SOLUBILITY IN WATER: ..... Complete
VOLATILITY
INCLUDING WATER: ..... None
MOLECULAR WEIGHT: .....NA
EVAPORATION RATE: .....NA
PHYSICAL STATE: ..... Solid, bead or flake
COLOR: ..... White
ODOR: ..... Bland

10 – STABILITY and REACTIVITY

STABILITY: ..... Stable
HAZARDOUS DECOMP.:..... Will not occur
INCOMPATIBILITY: ..... Avoid direct contact with water and strong acids. Add slowly to water or acids with dilution and agitation to avoid a violent exothermic or explosive reaction. Avoid contact with aluminum, tin, zinc, leather, and organic halogen or nitro compounds. Sodium hydroxide in contact with acids and organic halogen compounds, especially trichloroethylene, may causes violent reactions. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts. Contact with metals such as aluminum, magnesium, tin, and zinc cause formation of flammable hydrogen gas. Sodium hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce carbon monoxide. Precautions should be taken including monitoring the tank atmosphere for carbon monoxide to ensure safety of personnel before vessel entry.
HAZARDOUS REACTIONS:…… Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

11 – TOXICOLOGICAL INFORMATION

THRESHOLD LIMIT VALUE:.....2 mg/m^3
OSHA PEL:.....2 mg/m^3
LISTED CARCINOGEN:…….. This product IS NOT listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA.
MEDICAL CONDITION AGGRAVATED:……Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Respiratory system. Eyes. Skin.

INFORMATION ON ACUTE TOXICOLOGICAL EFFECTS

ORAL

Product: ..... The reported lethal dose in rats is 140-340 mg/kg. Ingestion may cause a burning sensation in the mouth, corrosion of thelips, mouth, tongue and pharynx, and severe esophageal and abdominal pain, vomiting of blood and large pieces of mucosa, and bloody diarrhea. Asphyxia can occur from swelling of the throat. Mediastinitis, alkalemia, pallor, weak, slow pulse, cardiovascular collapse, shock, coma and death may occur. Perforation of the alimentary tract and constrictive scarring may result. Esophageal stricture may occur weeks, months, or even years later to make swallowing difficult. The estimated fatal dose in man is 5grams. Cases of squamous cell carcinoma of the esophagus have occurred with latent periods of 12 to 42 years after ingestion. These cancers were believed to be sequela of tissue destruction and possibly scar formation rather than the result of direct carcinogenic action of sodium hydroxide.

DERMAL

Product: ..... Upon contact with the skin, damage including redness, cutaneous burns, skin fissures and white eschars may occur without immediate pain. Exposure to solutions as weak as 0.03 N (0.12%) for 1 hour has caused injury to healthy skin. With solutions of 0.4-4%, irritation does not occur until after several hours. Solutions of 25-50%caused no sensation of irritation within 3 minutes in human subjects. Skin biopsies from human subjects having 1 N sodium hydroxide applied to their arms for 15 to 180 minutes showed progressive changes beginning with dissolution of the cells in the horny layer and progressing through edema to total destruction of the epidermis in 60 minutes. A 5% aqueous solution caused severe necrosis to the skin of rabbits when applied for 4 hours. Alkalies penetrate the skin slowly. The extent of injury depends on the duration of contact. If sodium hydroxide is not removed from the skin, severe burn swith deep ulceration may occur. Exposure to the dust or mist may cause multiple small burns and temporary loss of hair. Pathologic findings due to alkalies may include gelatinous, necrotic areas at the site of contact.

INHALATION

Product: ..... Effects due to inhalation of dusts or mist may vary from mild irritation of the nose at 2 mg/m^3 to severe pneumonitis depending on the severity of exposure. Low concentrations may cause mucous membrane irritation with sore throat, coughing, and dyspnea. Intense exposures may result in destruction of mucous membranes and delayed pulmonary edema or pneumonitis. Shock may occur.

REPEATED DOSE TOXICITY

Product: ..... Anepidemiologic study of 291 workers chronically exposed to caustic dusts for 30 years or more found no significant increase in mortality in relation to duration or intensity of such exposures.

SKIN CORROSION / IRRITATION

Product: ..... Effects are dependent upon concentration and duration of exposure. Dermatitis or effects similar to those for acute exposure may occur.

SERIOUS EYE DAMAGE / IRRITATION

Product: ..... Contact may cause disintegration and sloughing ofconjunctival and corneal epithelium, corneal opacification, marked edemaand ulceration. After 7 to 13 days either gradual recovery begins or thereis progression of ulceration and corneal opacification. Complications ofsevere eye burns are symblepharon with overgrowth of the cornea by a vascularized membrane, progressive or recurrent corneal ulceration and permanent corneal opacification. Blindness may occur.

RESPIRATORY OR SKIN SENSITIZATION

Product: ..... Anepidemiologic study of 291 workers chronically exposed to caustic dusts for 30 years or more found no significant increase in mortality in relation to duration or intensity of such exposures.

MUTAGENCITY

IN VITRO

Product: ..... No Data Available

IN VIVO

Product: ..... No Data Available

Specified Substance(s)	**Information as provided by manufacturer**
Sodium Hydroxide, bead	Data has shown negative results for mutagenicity both in vitro and in vivo. It is concluded that the available data are sufficient and indicate that this material has no significant genotoxicity.

CARCINOGENICITY

Product: ..... As per manufacturer: After extensive testing and more than 100 years of industrial experience with caustic soda, there is no evidence that caustic is a skin sensitizer or is readily absorbed through the skin. It is not a known carcinogen, mutagen, developmental toxicant or reproductive toxicant.

REPODUCTIVE TOXICITY

Product: ..... Based on available data the classification criteria are not met. Not classified as hazardous.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

Product:……. I**NHALATION:** Exposure to vapor, mist or liquid can produce burns of the respiratory tract. Severe exposures could result in chemical pneumonia. **EYES:** Contact can cause severe damage including burns and blindness. The severity of the effects depend on concentration and how soon after exposure the eyes are washed. **SKIN:** Corrosive. Contact may cause burns and tissue destruction. Note that irritation may follow an initial latency (delay between the time the exposure occurs and when the sense of irritation starts). The latent period can vary as much as hours for a dilute solution (0.04%) to minutes with more concentrated solutions (25 - 50%). Prolonged or repeated contact, even to dilute concentrations, can cause a high degree of tissue destruction. **INGESTION:** Corrosive. Severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE

Product: .....CARCINOGENIC EFFECTS: Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. **DEVELOPMENTAL TOXICITY:** Not available. The substance is toxic to lungs. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

ASPIRATION HAZARD

Product: ..... Droplets of the product aspirated into the lungs through ingestion or vomiting may cause chemical pneumonia.

OTHER ADVERSE EFFECTS

Product: ..... To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Handle in accordance with good industrial hygiene and safety practice.

12 – ECOLOGICAL INFORMATION

ACUTE TOXICITY

FISH

Product: ..... Bluegill sunfish: 48-hour LC50 = 99 mg/L Mosquito fish: 96-hour LC50 = 125 mg/L Brown shrimp (Crangon crangon): 48-hour LC50 = 30 - 100 mg/L

AQUATIC INVERTEBRATES

Product: ..... Daphnia magna - Water flea: Acute LC50 196 mg/L Marine water.

CHRONIC TOXICITY

FISH

Product: ..... Concentrations of 20 to 100 mg/L have been reported to kill salmon, trout, carp and crayfish.

AQUATIC INVERTEBRATES

Product: ..... Expected to have low toxicity: 10 < LC/EC/IC50 <= 100 mg/l

TOXICITY TO AQUATIC PLANTS

Product: ..... Freshwater algae are destroyed above pH 8.5.

PERSISTENCE AND DEGRADABILITY

BIODEGRADATION

Product: ..... The methods for determining the biological degradability are not applicable to predominately inorganic substances.

BIOLOGICAL OXYGEN DEMAND

Product: ..... No data available

CHEMICAL OXYGEN DEMAND

Product: ..... No data available

BOD / COD RATIO

Product: ..... No data available

BIOACCUMULATIVE POTENTIAL

Product: ..... Sodium hydroxide does not bioaccumulate due to its high solubility in water. It is considered slightly toxic to aquatic organisms unless there is a significant pH shift outside the range of 5 – 10; this change may be toxic to aquatic organisms.

MOBILITY IN SOIL

Product: ..... Expected to partition to water. The pH effect of sodium hydroxide in water is naturally reduced by the absorption of atmospheric carbon dioxide. This reduction is also effected by dilution with water and by the natural acidity of a given water body. There is no degradation of sodium hydroxide in waters, only loss by absorption or through chemical neutralization.

RESULTS OF PBT AND mPvB ASSESSMENT

Product: ..... Not fulfilling PBT (persistent/bio accumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bio accumulative) criteria.

OTHER ADVERSE EFFECTS

Product: ..... No data available

13 –DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:..... Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14 – TRANSPORTATION INFORMATION

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

UN/NA NUMBER:.....1823
PROPER SHIPPING NAME:..... Sodium Hydroxide, solid
HAZARD CLASS:.....8
PACKAGING GROUP : II
LETTER:.....C (Corrosive substances)
ENVIRONMENTAL HAZARD: ..... Environmental Hazard Value Score (IRCH) = 29. Caustic soda does not bioaccumulate due to its high solubility in water. It is considered slightly toxic to aquatic organisms unless there is a significant pH shift outside the range of 5 – 10, which may be toxic to aquatic organisms.
REPORTABLE QUANTITY:.....CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4): Sodium Hydroxide 1,000 lb Category C.

15 - REGULATIONS

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. This SDS complies with 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD). **IMPORTANT:** Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

<u>EPA SRA Title III Chemical Listings:</u>

TSCA STATUS: ..... This product is listed on the TSCA inventory. If this product is a blend, all ingredients in the product are listed on the TSCA Inventory List. Any impurities present in this product are exempt from listing.
SECTION 302:..... None
SECTION 304:..... None
SECTION 312:..... Yes
SARA SECTION 313:.....SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372): This product contains toxic chemicals subject to the reporting requirements of Section 313, Title III of the SARA (Superfund Amendments and Reauthorization Act) of 1986: Sodium Hydroxide (Caustic Soda)
ACUTE: ..... Yes
CHRONIC: ..... Yes

FIRE: ..... No
PRESSURE: ..... No
REACTIVE:..... Yes
CLEAN WATER ACT:..... None

IMDG – International Marine Dangerous Goods Code
UN1823, Sodium hydroxide, solid, 8, PG II. EmS F-A, S-B. Marine Pollutant: No.
IATA
UN1823, Sodium hydroxide, solid, 8, PG II

DEA Chemical Trafficking Act:... No
Homeland Security Regulated .. This product does not contain any reportable DHS chemicals.

California Proposition 65 Chemical / Mixture not Listed
Component..... Chemical / Mixture not Listed
Cal Prop 65 NSRL..... No Significant Risk Level

US State Right to Know (RTK)
Component..... Chemical / Mixture not Listed
Massachusetts ..... No
New Jersey ..... No
Pennsylvania ..... No
Illinois..... No
Rhode Island..... No

****RTK Chemical(s).....**Chemical / Mixture not Listed

Canada NPRI ..... Chemical / Mixture not Listed

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): All ingredients in this product are listed on the DSL. Any impurities present in this product are exempt from listing.
AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): All ingredients in this product are listed on AICS or otherwise complies with NICNAS.
MITI (Japanese Handbook of Existing and New Chemical Substances): All ingredients in this product are listed in the Handbook or has been approved in Japan by new substance notification.
ECL (Korean Toxic Substances Control Act): All ingredients in this product are listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-04134
Philippines Inventory (PICCS): All ingredients in this product are listed on the Philippine Inventory or otherwise complies with PICCS.
Inventory of Existing Chemical Substances in China: All ingredients in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

16 – OTHER INFORMATION

HMIS*

HEALTH	3
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	H

HMIS®HAZARD INDEX: 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard.
HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS and product label must be considered.

ND = No Data, NA = Not Applicable/Not Available, ≤ = Less than or equal to, ≥ = Greater than or equal to

REVISION STATEMENT: Changes have been made throughout this Safety Data Sheet (SDS). Please read the entire document. Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) by the Company Health and Risk Assessment Unit.

DISCLAIMER:
Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, the Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving this Safety Data Sheet (SDS) will make their own determination as to its suitability for their intended purposes prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal and State Regulations concerning the Product. It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. **NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.**

*****This is the last page of this SDS*****