SAFETY DATA SHEET

This Safety Data Sheet (SDS) complies with the requirements of the U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2012) and equivalent state Standards. It has also been developed in accordance with the United Nations Globally Harmonized System of Classification of Chemicals (GHS) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Refer to Section 16 of this document for the definition of terms and abbreviations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFICATION

• PRODUCT NAME: MB FORUMLA

1.2 PRODUCT USE AND RESTRICTIONS

- IDENTIFIED USE: Jewelry processing and shaping.
- IDENTIFIED USERS: For sale to, use and storage by personnel trained in handling product safely.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

- DISTRIBUTED BY: GROBET FILE CO. OF AMERICA, LLC
- ADDRESS: 750 Washington Ave.; Carlstadt, NJ 07072
- BUSINESS PHONE: 201-939-6700; Toll Free 800-847-4188 (USA only)
- EMERGENCY PHONE: 1-800-255-3924 (9 am 5 pm EST)

1.4 OTHER PRODUCT INFORMATION

• This product is sold and used in relatively small volumes. This SDS has been developed to address safety concerns affecting specific handling situations associated with product use and those involving warehouses and other workplaces where large numbers of product containers are stored or distributed.

SECTION 2: HAZARDS IDENTIFICATION

2.1 HAZARD CLASSIFICATION

 Carcinogenicity (Category 1A); Reproductive Toxicity (Category 1B); Specific Target Organ Toxicity – Single Exposure (Category 3, Respiratory Irritation); Specific Target Organ Toxicity – Repeated Exposure (Category 1, Lungs). Eye Irritation (Category 2A).

2.2 LABEL ELEMENTS

- Hazard Pictograms:
- Signal Word:

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- Hazard Statements:
- Precautionary Statements
 O Prevention:

Response:



May cause respiratory irritation. May cause cancer. Causes damage to lungs through prolonged or repeated inhalation exposure. Causes serious eye irritation.

Keep out of reach of children. Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dusts or particulates. Wash exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, and eye protection.

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell. 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.

Storage:Store in a well-ventilated place. Keep container tightly closed. Store locked up.Disposal:Dispose of contents/ container to an approved waste disposal plant.

2.3 OTHER PERTINENT DATA ON HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS

• Dust may cause mechanical irritation to eyes, nose, throat, and lungs.

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 INDENTIFICATION OF HAZARDOUS SUBSTANCES IN PRODUCT

NAME	CAS NUMBER	GHS HAZARD CLASSIFICATION FOR COMPONENT	% (w/w)	
Inorganic Compound #01	Proprietary ¹	Eye Irritation (Category 2A)	Proprietary	
Inorganic Compound #02	Proprietary	Reproductive toxicity (Category 1B)	Proprietary	
Silicon Dioxide Mixture Containing: Quartz Cristobalite	14808-60-7 14464-46-1	Carcinogenicity (Category 1A) Specific Target Organ Toxicity – Single Exposure (Category 3, Respiratory Irritation); Specific Target Organ Toxicity – Repeat Exposure (Category 1, Lungs/Inhalation).	10-20	
None of the other substances in this mix the definitions under the Globally Harmo in which they are present in the mixture.	ture are classified as hazardous, per nized System, in the concentrations	Not Classified as hazardous.	Balance	

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

• BASIC FIRST AID BY EXPOSURE ROUTE:

AREA EXPOSED	TREATMENT
Eye Contact:	Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention should any irritation develop.
Skin Contact:	Flush area with warm, running water for several minutes. Seek medical attention should any irritation develop.
Inhalation:	Obtain fresh air. Seek medical attention if irritation develops after exposure ends, or if other symptoms of inhalation exposure occur (e.g., shortness of breath).
Ingestion:	If conscious only: Rinse mouth with water. Drink several cups of water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

• ACUTE HEALTH EFFECTS:

AREA EXPOSED	EFFECTS
Eye Contact:	Causes serious eye irritation.
Skin Contact:	Prolonged skin contact may be irritating.
Inhalation:	Inhalation of dusts is irritating to nasal passages and respiratory system
Ingestion:	May be irritating to digestive system.

- CHRONIC HEALTH EFFECTS: Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.
- TARGET ORGANS: Eyes, reproductive system, respiratory system.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- **GENERAL INFORMATION:** For all exposures: In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.
- RECOMMENDATIONS TO PHYSICIANS: Treat symptomatically.
- **MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** Medical conditions impacting the target organs can be aggravated upon overexposure.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- **RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, Halon, or any other.
- UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

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¹ Substances and composition information are being withheld as trade secrets. All pertinent health and physical hazard information has been provided, as specified in chemical hazard communication regulatory requirements.

SECTION 5: FIREFIGHTING MEASURES

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

NFPA FLAMMABILITY CLASSIFICATION:

NFPA Rating:



NFPA Hazard Classification: Not flammable.

UNUSUAL HAZARDS IN FIRE SITUATIONS:
 <u>POTENTIAL HAZARD</u>
 Decomposition:
 Ge

DESCRIPTION FOR PRODUCT

Incompatibilities: See Section 10 Explosion Sensitivity to Mechanical Impact: Not applicable. Explosion Sensitivity to Static Discharge: Not applicable.

Generates extremely irritating vapors, silicon compounds, and other potentially hazardous materials. See Section 10 (Reactivity and Stability). Not applicable.

5.3 ADVICE FOR FIREFIGHTERS

 Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fireexposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- RESPONSE TO INCIDENTAL RELEASES: Personnel who have received basic chemical safety training can generally
 handle small-scale releases. Gloves and safety glasses must be worn when cleaning-up spills. Use caution during
 clean-up; contaminated floors and items may be slippery.
- RESPONSE TO NON-INCIDENTAL RELEASES: Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases.

As needed, respond to non-incidental chemical releases of this product (such as the simultaneous destruction of several pallets of this product) by clearing the impacted area and contacting appropriate emergency personnel.

In the unlikely event of a multi-container release of the product, and there is no other hazardous condition in the area, the use of an air-purifying respirator with high efficiency particulate filter, face-shield, safety glasses, and double gloves (e.g. nitrile over latex gloves), and body protection is recommended if dusts can be generated during clean-up or the concentration of particulates is high.

• **RESPONSE PROCEDURES FOR ANY RELEASE:** Clean-up spilled powder with damp sponge, polypad, or paper towel. Dispose of waste properly.

6.2 ENVIRONMENTAL PRECAUTIONS

• **IN CASE OF SPILL:** Collect spillage promptly. Avoid response actions that can cause a release of a significant amount of the substance into the environment. Avoid accidental dispersal of spilled material into soil, waterways and sewers.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

• SPILL RESPONSE EQUIPMENT: Polypad or other absorbent material.

6.4 REFERENCE TO OTHER SECTIONS

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- **HYGIENE PRACTICES:** Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of dusts. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.
- . **HANDLING PRACTICES:** Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

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SECTION 7: HANDLING AND STORAGE (Continued)

7.2 CONDITIONS FOR SAFE STORAGE

- **STORAGE PRACTICES:** Ensure all containers are correctly labeled. Store containers away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Empty containers may contain residual material; therefore, empty containers should be handled with care.
- INCOMPATIBILITIES: See Section 10 (Stability and Reactivity).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

• AIRBORNE EXPOSURE LIMITS: The following limits have been established for the components listed in section 3:

COMPONENT	ACGIH TLV	OSHA PEL	NIOSH REL	OTHER
Crystalline Silica, Quartz	0.025 mg/m3 (Respirable Fraction)	<u>30 mg/m3</u> %SiO2 + 2 (Total Dust) <u>250 mppcf</u> %SiO2 + 5 (Respirable Fraction)	0.05 mg/m3 (Respirable Fraction)	NE
Inorganic Compound #02 (As Borate Compounds, Inorganic)	2mg/m ³ TWA; 6 mg/m ³ STEL	NE	NE.	NE.

• **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** None established.

8.2 EXPOSURE CONTROLS

- GENERAL GUIDELINES: This product is intended for professional use only.
- ENGINEERING CONTROLS: Ensure area has adequate ventilation to ensure minimal inhalation of dusts can occur.
- **RESPIRATORY PROTECTION:** None needed under normal circumstances of use.
- HAND PROTECTION: Neoprene or nitrile gloves are recommended. Ensure gloves are intact prior to use.
- EYE PROTECTION: Safety glasses are recommended.
- **BODY PROTECTION:** Body protection suitable to task is recommended.

8.3 PERSONAL PROTECTION SYMBOLS



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

• APPEARANCE AND DISTINGUISHING CHARACTERISTICS:

PROPERTY State: Color: Odor: Odor Threshold: pH:

DATA Solid. Off-white. Odorless Not determined. Not applicable.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Continued)

• PHYSICAL DATA:

PROPERTY	DATA
Melting Point/Freezing Point:	Not determined
Initial Boiling Point/Boiling Range:	Not applicable.
Flash Point:	Not applicable.
Evaporation Rate (Water = 1):	Not applicable.
Flammability:	Not applicable.
Upper/Lower Explosive Limits	Not applicable.
Vapor Pressure:	Not applicable.
Vapor Density	Not applicable.
Relative Density (Density):	Not determined
Solubility:	Not soluble.
Partition Coefficient/n-octanol/water:	Not determined
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not applicable.
Viscosity:	Not applicable.

9.2 OTHER USEFUL INFORMATION ON PROPERTIES

• VOC (less water & exempt): 0.0 g/L. VOC % By WEIGHT: 0.0%.

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY AND CHEMICAL STABILITY

- The product is not reactive under typical conditions of use or handling.
- Normally stable under standard temperatures and pressures.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS

• Product is not self-reactive, water-reactive, or air-reactive; it will not undergo hazardous polymerization.

10.3 CONDITIONS TO AVOID

• Avoid contact with incompatible chemicals and adverse storage conditions.

10.4 INCOMPATIBLE MATERIALS

• Incompatible with strong acids, hydrofluoric acid, strong bases, oxidizing agents and strong reducing agents.

10.5 HAZARDOUS DECOMPOSITION PRODUCTS

• Thermal decomposition of this product generates silicon compounds and other potentially hazardous materials.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON ACUTE TOXICITY

- PRODUCT TOXICOLOGY DATA: The following are calculated estimates for the product:
 - Acute Toxicity Estimate (Oral) > 5000 mg/kg
 - Acute Toxicity Estimate (Dermal) > 5000 mg/kg
- SUBSTANCE TOXICOLOGY DATA: The following are toxicology data for listed components of the product:

INORGANIC COMPOUND #01

LD₅₀ (Oral, Rat) = 4,090 mg/kg LC₅₀ (Inhalation, Rat) = 2 hours, 2,300 mg/m³

INORGANIC COMPOUND #02

Specific Locus Test-Drosophila melanogaster-Oral 714 ppm Cytogenetic Analysis-Drosophila melanogaster-Oral 714 ppm TDLo (Oral, Rat) = 37 g/kg (multi):Reproductive effects LDLo (Oral, Infant) = 1000 mg/kg

INORGANIC COMPOUND #02 (Continued)

LDLo (Oral, Man) = 709 mg/kg LD₅₀ (Oral, Rat) = 2660 mg/kg Oral-Mouse LD₅₀ (Oral, Mouse) = 2000 mg/kg LD₅₀ (Intraperitoneal, Mouse) = 2711 mg/kg LD₅₀ (Intravenous, Mouse) = 1320 mg/kg LDLo (Subcutaneous, Rabbit) = 150 mg/kg LD₅₀ (Oral, Guinea Pig) =5330 mg/kg

• **DEGREE OF IRRITATION:** The product causes serious eye irritation and respiratory irritation. It may be mildly irritating on the skin of sensitive individuals or after prolonged exposure.

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SECTION 11: TOXICOLOGICAL INFORMATION (Continued)

- SENSITIZATION: This product does not contain any compound reported to be either a skin or respiratory sensitizer.
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazards Information) and Section 4 (First-Aid Measures) for additional details.
 - **Eyes:** Causes serious eye irritation.
 - Skin: Prolonged skin contact may be irritating.
 - Inhalation: Inhalation of dusts is irritating to nasal passages and respiratory system.
- Ingestion: May be irritating to digestive system.
 11.2 INFORMATION ON CHRONIC TOXICITY
 - CARCINOGENICITY STATUS: Not established for any component of this product.
 - REPRODUCTIVE TOXICITY INFORMATION: The components of this product are not reported to cause reproductive effects under typical circumstances of exposure. The following data are available, in terms of reproductive toxicity effects:
 - **INORGANIC COMPOUND #02:** Animal ingestion studies in several species at high doses, indicate that similar compounds cause reproductive developmental effects. A human study of occupational exposure to such dusts showed no adverse effect on reproduction. Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses administered were many times in excess of those to which humans would normally be exposed. Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures.
 - MUTAGENIC EFFECTS The components of this product are not reported to cause mutagenic effects under typical circumstances of exposure.
 - SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE: Respiratory irritation.
 - **SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE:** Due to the presence of respirable crystalline silica particulates, repeated over-exposures via inhalation may cause damage to lung and cancer.
 - **ASPIRATION HAZARD:** Not applicable.

11.3 OTHER USEFUL TOXICOLOGY INFORMATION

• TOXICOLOGICALLY SYNERGISTIC PRODUCTS: None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL TOXICITY

- Based on available data, this product is not anticipated to be harmful to contaminated terrestrial plants or animals.
- Based on available data, this product is not anticipated to be harmful to contaminated aquatic plants or animals.

12.2 PERSISTENCE AND DEGRADABILITY

• Components of this product occur naturally in the environment.

12.3 BIOACCUMULATIVE POTENTIAL

• This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

• It is to be expected this product will have some mobility in soil.

12.5 OTHER ADVESE ENVIRONMENTAL EFFECTS

• None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREAMENT METHODS

• Dispose of in accordance with local, state and national regulations.

13.2 DISPOSAL CONSIDERATIONS

• EPA RCRA WASTE CODE: Not applicable to wastes consisting only of this product.

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SECTION 13: DISPOSAL CONSIDERATION (Continued)

13.3 DISPOSITION OF EMPTY CONTAINERS

- Empty containers may contain residual material; therefore, empty containers should be handled with care.
- Empty containers should be discarded properly.

SECTION 14: TRANSPORT INFORMATION

14.1 HAZARDOUS MATERIALS TRANSPORATION REGULATIONS

• DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT APPLICABLE: NOT REGULATED AS A HAZARDOUS MATERIAL.						

- **CANADIAN TRANSPORTATION INFORMATION**: This product is not regulated by Transport Canada as dangerous goods under Canadian transportation standards. Refer to above information.
- **IATA DESIGNATION**: Product is not regulated as dangerous goods by the International Air Transport Association.
- **IMO DESIGNATION**: Product is not regulated as dangerous goods by the International Maritime Organization.

14.2 ENVIRONMENTAL HAZARDS

• None known.

14.3 SPECIAL PRECAUTIONS FOR TRANSPORTERS

• None established.

14.4 TRANSPORT IN BULK

• Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 OTHER IMPORTANT U.S. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

- U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.
- U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21): ACUTE: Yes; CHRONIC: Yes; FIRE: No; REACTIVE: No; SUDDEN RELEASE: No.
- U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.
- U.S. SARA 313: Not applicable to the chemicals in this product, in the form in which they exist.
- **U.S. TSCA INVENTORY STATUS:** All components of this product are listed on the TSCA Inventory.
- US CLEAN AIR ACT (SECTION 112r): Not applicable.

15.2 OTHER IMPORTANT U.S. STATE REGULATIONS FOR COMPONENTS

• CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS: WARNING! This product contains Quartz, a substance known to the State of California to cause cancer.

STATE HAZARDOUS SUBSTANCES LIST:

COMPONENT	NJ Right to Know	PA Right to Know	MA Right to Know	OTHER
Inorganic Compound #01	LISTED	LISTED	NOT LISTED	ND
Inorganic Compound #02	LISTED	LISTED	LISTED	ND
Silicon Dioxide/Quartz/ Cristobalite	LISTED	LISTED	LISTED	ND

15.3 OTHER IMPORTANT CANADIAN SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

• CANADIAN DSL/NDSL INVENTORY STATUS: Components of this product are on the DSL/NDSL Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: The components
 of this product are not on the CEPA Priority Substances Lists.

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SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- DATE OF REVISION: April 8, 2016
- SUPERCEDES: New

Protective Equi

CHANGE INDICATED: Preparation, per OSHA Hazard Communication Standard (29 CFR 1910.1200).

16.2 HAZARDOUS MATERIALS SYSTEM RATING

	1*	* Carcinogenicity; Reproductive Toxicity; Respiratory Irritation; Target Organ Effects
	0	
ł	0	(Personal Protective Equipment Rating: Occupational Use situations: B – Safety glasses/gloves/body
pment	В	protection. See section 8 for details.)

16.3 **DEFINITIONS**

Health Flammability Physical Hazard

SECTION EXPLANATION OF TEMS/ABBREVIATIONS

- ALL OSHA: U.S. Federal Occupational Safety and Health Administration. <u>WHMIS</u>: Canadian Workplace Hazardous Materials Standard. <u>GHS</u>: Globally Harmonized System of Classification of Chemical Substances. <u>HCS</u>: Hazard Communication Standard (U.S.). <u>HPR</u>: Hazardous Products Regulations (Canada).
- <u>CAS Number</u>: Chemical Abstract Service Number, used by the American chemical Society to uniquely identify a chemical.
 NFPA: National Fire Protection Association. NFPA FLAMMABILITY CLASSIFICATION: The NFPA uses the flash point
- (FI.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: FI.P. below 73°F and BP below 100°F. Class IB: FI.P. below 73°F and BP at or above 100°F. Class IC: FI.P. at or above 73°F and BP at or above 100°F. Class II: FI.P. at or above 140°F and below 200°F. Class IIB: FI.P. at or above 140°F and below 200°F. Class IIB: FI.P. at or above 200°F. NEPA HAZARDOUS MATERIALS RATING: This is a rating system used to summarize physical and health hazards to firefighters Blue = Health hazard; Red = Fire Hazard; Yellow = Reactivity Hazard. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
- 8 <u>NE</u>: Not established. <u>ACGIH</u>: American Conference of Government Industrial Hygienists; <u>TWA</u>: Time-Weighted Average (over an 8-hour work day); <u>STEL</u>: Short-Term Exposure Limit (15 minute average, no more than 4-times daily and each exposure separated by one-hour minimally); <u>C</u>: Ceiling Limit (concentration not to be exceeded in a work environment). <u>PEL</u>: Permissible Exposure Limit. <u>NIOSH</u>: National Institute of Occupational Safety and Health; <u>REL</u>: Recommended Exposure Limit. <u>ppm</u>: Parts per Million. <u>mg/m</u>³: Milligrams per cubic meter. <u>mppcf</u>: Millions of Particles per Cubic Foot. <u>BEI</u>: Biological Exposure Limit.
- 9 <u>pH</u>: Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. <u>FLASH POINT</u>: Temperature at which a liquid generates enough flammable vapors so that ignition may occur. <u>AUTOIGNITION TEMPERATURE</u>: Temperature at which spontaneous ignition occurs. <u>LOWER EXPLOSIVE LIMIT (LEL)</u>: The minimal concentration of flammable vapors in air which will sustain ignition. <u>UPPER EXPLOSIVE LIMIT (UEL)</u>: The maximum concentration of flammable vapors in air which will sustain ignition.≈: Approximately symbol. <u>VOC</u>: Volatile Organic Compound.
- 11 CARCINOGENICITY STATUS: NTP: National Toxicology Program. IARC: International Agency for Research on Cancer. <u>REPRODUCTIVE TOXICITY INFORMATION</u>: Germ Cell Mutagenicity: Substance capable of causing chromosomal damage to cells. Embryotoxicity: Substance capable of damaging the developing embryo in an overexposed female. Teratogen: Substance capable of damaging the developing fetus in an overexposed female. Reproductive toxin: Substance capable of adversely affecting male or female reproductive organs or functions. <u>TOXICOLOGY DATA</u>: LDxxor LCxx: The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to access the toxicity of chemical substances to humans. TDxxor TCxx: The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
- 12 <u>EC50</u>: Effect Concentration (on 50% of study group); <u>BOD</u>: Biological Oxygen Demand.
- 13 <u>RCRA</u>: Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. <u>EPA RCRA Waste Codes</u>: Defined in 40 CFR Section 261.
- 15 <u>NJ</u>: New Jersey. <u>PA</u>: Pennsylvania. <u>MA</u>: Massachusetts. <u>ND</u>: Not determined. <u>CERCLA</u>: Comprehensive Environmental Response, Compensation, and Liability Act. <u>SARA</u>: Superfund Amendments and Reauthorization Act.
- **16** <u>HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING</u>: This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

16.4 DISCLAIMER

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user.

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