SAFETY DATA SHEET



COSMO PU-205.280 (COSMOFEN DUO - Hardener)

Section 1. Identification

GHS product identifier : COSMO PU-205.280

(COSMOFEN DUO - Hardener)

Other means of identification

: Not available.

Product type : Liquid.

Relevant identified uses on the substance or mixture and uses advised against

Product use : Adhesive.

Area of application : Professional applications.

Supplier's details : Weiss USA LLC P.O. Box 509

F.O. BOX 309

USA, Monroe, NC 28111-0509

For information, contact the Product Safety Department

Telephone no.: (001) 704 282 4496. E-Mail: Stephen@weiss-usa.com

e-mail address of person responsible for this SDS

: Stephen@weiss-usa.com

Emergency telephone number (with hours of

operation)

: +49 (0) 700 / 24 112 112 (WIC)

Section 2. Hazards identification

OSHA/HCS status

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

Classification of the substance or mixture

: SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A

RESPIRATORY SENSITIZATION - Category 1

SKIN SENSITIZATION - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms :





Signal word : Danger

 Date of issue/Date of revision
 : 08/01/2023
 Date of previous issue
 : No previous validation
 Version
 : 1
 1/14

Section 2. Hazards identification

Hazard statements

: H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General

: Not applicable.

Prevention

: P280 - Wear protective gloves: 1 - 4 hours (breakthrough time): Nitrile gloves. (>=0.35

mm). Protective hand cream.. Wear eye or face protection.

P285 - In case of inadequate ventilation wear respiratory protection: Recommended: A respirator is not needed under normal and intended conditions of product use. Use appropriate respiratory protection if there is a risk of exceeding any exposure limits.

Filter A2 P2.

P271 - Use only outdoors or in a well-ventilated area.

P260 - Do not breathe vapor.

P264 - Wash hands thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.

Response

: P314 - Get medical attention if you feel unwell.

P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or

physician.

P302 + P352 + P362-2 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take

off contaminated clothing. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical attention.

Storage : P405 - Store locked up.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Hazards not otherwise

classified

: Defatting to the skin.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : Not available.

Ingredient name	Other names	%	CAS number
ester	Not available.	30-60	9016-87-9
Benzoic acid, nonyl ester, branched and linear	nonyl benzoate, branched and linear	5-10	670241-72-2

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

Skin contact

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/elects, acute and delayed Potential

acute health select

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

Section 4. First aid measures

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

wheezing and breathing difficulties

asthma

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, io necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

: No specific treatment.

Protection on first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Unsuitable extinguishing

media

: Do not use water jet.

Specific hazards arising from the chemical

: Decomposition products may include the following materials:

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

carbon dioxide
Carbon monoxide
metal oxide/oxides

nitrogen oxides Isocyanate

Hydrogen cyanide (HCN).

Toxic gases

Special protective actions or fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters Remark

- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- : Not considered to be a product presenting a risk of explosion. Heating may cause an explosion.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions of safe storage, including any incompatibilities

: Store between the following temperatures: 15 to 25°C (59 to 77°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Isocyanic acid, polymethylenepolyphenylene ester	OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 5 mg/m³, (as CN) 8 hours. OSHA PEL (United States, 6/2010). Absorbed through skin. TWA: 5 mg/m³, (as CN) 8 hours.

Appropriate engineering controls

 Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 1 - 4 hours (breakthrough time): Nitrile gloves. (>=0.35 mm). Protective hand cream.

Section 8. Exposure controls/personal protection

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Long-sleeved protective clothing. Safety shoes.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: A respirator is not needed under normal and intended conditions of product use. Use appropriate respiratory protection if there is a risk of exceeding any exposure limits. Filter A2 P2

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Paste-like.]

Color : According to specification

Odor : Slight

: Not available. **Odor threshold** pН : Not applicable. : Not available. **Melting point Boiling point** : Not available. : Not available. Flash point **Evaporation rate** : Not applicable. Flammability (solid, gas) : Not applicable.

Lower and upper explosive

(olammable) limits

: Not available.

: Not available. Vapor pressure Vapor density Not available. : Not available. **Relative density**

Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Not available. : Not available. Partition coefficient: n-

octanol/water **Auto-ignition temperature**

: Not available. : Not available.

Decomposition temperature : Not available. SADT **Viscosity** : Not available. **Density** : ~1.6 g/cm3 [20°C] : Non-volatile.

Physical/chemical properties comments

Section 10. Stability and reactivity

Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: The product is stable.

Possibility of hazardous reactions

: Hazardous reactions or instability may occur under certain conditions of storage or use.

Hazardous polymerization may occur under certain conditions of storage or use. May polymerize on exposure or in contact to the following: heat [>~260°C (>~500°F)]

Conditions to avoid

: Protect from moisture. Keep away from heat.

Incompatible materials

 Keep away from the following materials to prevent strong exothermic reactions: alcohols, amines, alkalis, acids, water

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isocyanic acid, polymethylenepolyphenylene ester	LC50 Inhalation Dusts and mists	Rat	490 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>9400 mg/kg	-
	LD50 Oral	Rat	49 g/kg	-
Benzoic acid, nonyl ester, branched and linear	LC50 Inhalation Dusts and mists	Rat	>5.22 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isocyanic acid, polymethylenepolyphenylene ester	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
Benzoic acid, nonyl ester, branched and linear	Skin - Irritant Skin - Mild irritant	Rabbit Rabbit	-	-	-
	Eyes - Mild irritant	Rabbit	-	-	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Benzoic acid, nonyl ester, branched and linear	skin	Guinea pig	Not sensitizing

Mutagenicity

Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
, , , , , , , , , , , , , , , , , , , ,	471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Isocyanic acid, polymethylenepolyphenylene ester	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route or exposure	Target organs
Isocyanic acid, polymethylenepolyphenylene ester	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route or exposure	Target organs
Isocyanic acid, polymethylenepolyphenylene ester	Category 2	Not determined	lungs

Aspiration hazard

Not available.

Information on the likely routes on exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health

Eye contact

: Causes serious eye irritation.

Inhalation

: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Skin contact

: Causes skin irritation. May cause an allergic skin reaction.

Ingestion

: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

: Adverse symptoms may include the following: pain or irritation

watering redness

Section 11. Toxicological information

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

wheezing and breathing difficulties

asthma

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Delayed and immediate and also chronic from short and long term exposure Short term

exposure

Potential immediate : Not available.

Potential delayed : Not available.

Long term exposure

Potential immediate : Not available.

Potential delayed : Not available.

Potential chronic health

Product/ingredient name	Result	Species	Dose	Exposure
Benzoic acid, nonyl ester, branched and linear	Chronic NOAEL Oral	Rat	300 mg/kg	-

General: May cause damage to organs through prolonged or repeated exposure. Once

sensitized, a severe allergic reaction may occur when subsequently exposed to very low

levels.

Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.Teratogenicity: No known significant effects or critical hazards.Developmental: No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : Adverse symptoms may include the following:

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Benzoic acid, nonyl ester, branched and linear	NOEC 0.0428 mg/l	Fish	33 days
	Acute EC50 >2.2 mg/l Acute LC50 >1.23 mg/l	Daphnia - Daphnia magma Fish - Cyprinus capri	48 hours 96 hours

Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Isocyanic acid, polymethylenepolyphenylene ester Benzoic acid, nonyl ester, branched and linear	302C Inherent Biodegradability: Modified MITI Test (II) 301B Ready Biodegradability - CO ₂ Evolution Test	0 % - 28 da 89 % - 28 d	•	-		-
Product/ingredient name	Aquatic halo-lioe		Photolysis		Biodeg	radability
Isocyanic acid, polymethylenepolyphenylene ester Benzoic acid, nonyl ester, branched and linear	-		-		Not rea	•

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Benzoic acid, nonyl ester, branched and linear	3.7 to 3.8	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Section 13. Disposal considerations

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information				
	DOT Classification	IMDG	IATA	
UN number	Not regulated.	Not regulated.	Not regulated.	
UN proper shipping name	-	-	-	
Transport hazard class(es)	-	-	-	
Packing group	-	-	-	
Environmental hazards	No.	No.	No.	
Additional information	-	-	-	

Special precautions for user

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II on MARPOL 73/78 and the IBC Code

: Not available.

Section 15. Regulatory information

U.S. Federal regulations

: TSCA 5(a)2 final significant new use rules: Benzoic acid, nonyl ester, branched and linear TSCA 8(a) PAIR: Siloxanes and Silicones, di-Me, reaction products with silica TSCA 8(c) calls for record on SAR: Isocyanic acid, polymethylenepolyphenylene ester TSCA 12(b) one-time export: Benzoic acid, nonyl ester, branched and linear United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: Isocyanic acid, polymethylenepolyphenylene ester

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)** : Listed

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

: Not listed

Class II Substances

: Not listed

DEA List I Chemicals (Precursor Chemicals)

Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Isocyanic acid, polymethylenepolyphenylene ester Benzoic acid, nonyl ester, branched and linear	30-60 5-10	No.	No.	No.	Yes. Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	30-60
Supplier notification	Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	30-60

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: None of the components are listed.

New York

: The following components are listed: Cyanides (soluble cyanide salts), not elsewhere

specified

New Jersey

: The following components are listed: METHYLENE DIPHENYL DIISOCYANATE (POLYMERIC); ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER

Pennsylvania

: The following components are listed: CYANIDE COMPOUNDS

California Prop. 65

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Section 16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark on the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identity, health and reactivity hazards on chemicals. The user is referred to certain limited number oo chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of

Date of previous issue

revision

Version : 1

Key to abbreviations

: No previous validation

: 08/21/2023

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

: HCS (U.S.A.)- Hazard Communication Standard References

International transport regulations

✓ Indicates information that has changed from previously issued version.

Notice to reader

To the best our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever or the accuracy or completeness on the information contained herein.

Final determination on suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot quarantee that these are the only hazards that exist.