

SAFETY DATA SHEET

- US



SEMI-UREA 2

Version	Revision Date:	Date of last issue: 08/12/2024	Print Date:
3.0	08/12/2024	Date of first issue: 09/17/2021	09/30/2024

SECTION 1. IDENTIFICATION

Product name : SEMI-UREA 2

Manufacturer or supplier's details

Company name of supplier : PAN AMERICAN EQUIPMENT
2419 S 153rd St
Omaha, NE 68144-1921

Telephone : 4025021229
Telefax :

Emergency telephone :
number

Recommended use of the chemical and restrictions on use

Recommended use : Grease

Restrictions on use : Restricted to professional users.
The Environmental Protection Agency prohibits processing and distribution of this chemical/product for any use other than: (1) In hydraulic fluids either for the aviation industry or to meet military specifications for safety and performance where no alternative chemical is available that meets U.S. Department of Defense specification requirements, (2) lubricants and greases, (3) New or replacement parts for motor and aerospace vehicles, (4) as an intermediate in the manufacture of cyanoacrylate glue, (5) In specialized engine air filters for locomotive and marine applications, (6) In adhesives and sealants before January 6, 2025, after which use in adhesives and sealants is prohibited, and (7) in other articles before October 31, 2024, after which use in articles other than new or replacement parts for motor and aerospace vehicles or specialized engine air filters for locomotive and marine applications is prohibited. In addition, all persons are prohibited from releasing PIP (3:1) to water during manufacturing, processing, and distribution in commerce, and must follow all existing regulations and best practices to prevent the release of PIP (3:1) to water during the commercial use of PIP (3:1).

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SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitisation : Category 1

Reproductive toxicity : Category 2

Specific target organ toxicity : Category 2 (ovaries, Testes, Liver, Adrenal gland)
- repeated exposure (Oral)

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
May cause damage to organs (ovaries, Testes, Liver, Adrenal gland) through prolonged or repeated exposure if swallowed.

Precautionary statements :

Prevention:
Obtain special instructions before use.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
IF exposed or concerned: Get medical advice/ attention.
If skin irritation or rash occurs: Get medical advice/ attention.

Storage:
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

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Chemical nature : Mineral oil.
Synthetic hydrocarbon oil
polyurea

Components

Chemical name	CAS-No.	Concentration (% w/w)
Phenol, isopropylated, phosphate (3:1)	68937-41-7	Trade secret ($\geq 1 - < 5$)
4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol	68140-98-7	Trade secret ($\geq 0.1 - < 1$)

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- If inhaled : Obtain medical attention.
Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
If eye irritation persists, consult a specialist.
- If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Obtain medical attention.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.
No symptoms known or expected.

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Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
Sulphur oxides
Oxides of phosphorus
- Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
Exposure to decomposition products may be a hazard to health.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Ensure adequate ventilation.
Do not breathe vapours, aerosols.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Pick up and transfer to properly labelled containers.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Wash hands and face before breaks and immediately after

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handling the product.
Do not get in eyes or mouth or on skin.
Do not get on skin or clothing.
Do not ingest.
Do not repack.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

Conditions for safe storage : Store in original container.
Keep container closed when not in use.
Keep in a dry, cool and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store in accordance with the particular national regulations.
Keep in properly labelled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Residual oils (petroleum), hydrotreated	64742-57-0	TWA (Mist)	5 mg/m3	OSHA Z-1 (2018-03-15)
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH (2013-03-01)
		TWA (Mist)	5 mg/m3	NIOSH REL (2019-10-04)
		ST (Mist)	10 mg/m3	NIOSH REL (2019-10-04)

Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

Hand protection

Material : Nitrile rubber
Break through time : > 10 min
Protective index : Class 1

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- Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.
- Eye protection : Safety glasses
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : paste
- Colour : beige
- Odour : characteristic
- Odour Threshold : No data available
- pH : Not applicable
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : Not applicable
- Evaporation rate : No data available
- Flammability (solid, gas) : Combustible Solids
- Self-ignition : No data available

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Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 0.88 (68 °F / 20 °C)
Reference substance: Water
The value is calculated

Bulk density : No data available

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

Particle size : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous : No dangerous reaction known under conditions of normal use.

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reactions

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Symptoms: Redness, Local irritation

Components:

Phenol, isopropylated, phosphate (3:1):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg
GLP: no

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 423
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

Phenol, isopropylated, phosphate (3:1):

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Species : Rabbit
Exposure time : 72 h
Assessment : No skin irritation
Result : No skin irritation
GLP : no

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Species : human skin
Assessment : No skin irritation
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

Components:

Phenol, isopropylated, phosphate (3:1):

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
GLP : no

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Result : No eye irritation
Assessment : No eye irritation

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

Phenol, isopropylated, phosphate (3:1):

Species : Mouse
Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 429
Result : Did not cause sensitisation on laboratory animals.
GLP : yes

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Assessment : The product is a skin sensitiser, sub-category 1A.
Result : The product is a skin sensitiser, sub-category 1A.

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Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Product:

Remarks : No data available

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

IARC OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

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

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

Phenol, isopropylated, phosphate (3:1):

Reproductive toxicity - Assessment : - Fertility -
Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
- Teratogenicity -
Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT - single exposure

Product:

Remarks : No data available

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STOT - repeated exposure

Product:

Remarks : No data available

Components:

Phenol, isopropylated, phosphate (3:1):

Exposure routes : Ingestion
Target Organs : ovaries, Testes, Liver, Adrenal gland
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

This information is not available.

Components:

Phenol, isopropylated, phosphate (3:1):

No aspiration toxicity classification

Further information

Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other :
aquatic invertebrates : Remarks: No data available

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Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

Phenol, isopropylated, phosphate (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.6 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: Information given is based on tests on the mixture itself.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.44 mg/l
Exposure time: 48 h
Test Type: semi-static test
Remarks: Information given is based on tests on the mixture itself.

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 2.5 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes
Remarks: Information given is based on tests on the mixture itself.

Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.0031 mg/l
Exposure time: 33 d
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.0415 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 10

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 69.17 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 65.6 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

Phenol, isopropylated, phosphate (3:1):

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 17.9 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: yes

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: 34.73 %
Method: OECD Test Guideline 301B

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Phenol, isopropylated, phosphate (3:1):

Partition coefficient: n- : log Pow: 4.92 - 5.17 (77 °F / 25 °C)

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octanol/water

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Partition coefficient: n-octanol/water : log Pow: 3.42 (68 °F / 20 °C)

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Toxic to aquatic life with long lasting effects.

Components:

Phenol, isopropylated, phosphate (3:1):

Results of PBT and vPvB assessment : Non-classified PBT substance Non-classified vPvB substance

4-ethyl-2-(8-heptadecenyl)-2-oxazoline-4-methanol:

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and

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national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Triaryl Phosphate Isopropylated)
Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Triaryl Phosphate Isopropylated)
Class : 9
Packing group : III
Labels : Miscellaneous Dangerous Goods
Packing instruction (cargo aircraft) : 956
Packing instruction (passenger aircraft) : 956
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Triaryl Phosphate Isopropylated)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number : UN 3077

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Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Triaryl Phosphate Isopropylated)

Class : 9

Packing group : III

Labels : CLASS 9

ERG Code : 171

Marine pollutant : no

Remarks : Not regulated by ground transportation in non-bulk packages less than 119 gallons. For packages greater than 119 gallons, or for air/sea shipping, refer to applicable marine pollutant regulations.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitisation
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:
Triphenyl phosphate 115-86-6

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:
Phenol, isopropylated, phosphate (3:1) 68937-41-7

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The Environmental Protection Agency prohibits processing and distribution of this chemical/product for any use other than: (1) In hydraulic fluids either for the aviation industry or to meet military specifications for safety and performance where no alternative chemical is available that meets U.S. Department of Defense specification requirements, (2) lubricants and greases, (3) New or replacement parts for motor and aerospace vehicles, (4) as an intermediate in the manufacture of cyanoacrylate glue, (5) In specialized engine air filters for locomotive and marine applications, (6) In adhesives and sealants before January 6, 2025, after which use in adhesives and sealants is prohibited, and (7) in other articles before October 31, 2024, after which use in articles other than new or replacement parts for motor and aerospace vehicles or specialized engine air filters for locomotive and marine applications is prohibited. In addition, all persons are prohibited from releasing PIP (3:1) to water during manufacturing, processing, and distribution in commerce, and must follow all existing regulations and best practices to prevent the release of PIP (3:1) to water during the commercial use of PIP (3:1).

SECTION 16. OTHER INFORMATION

Further information

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test

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population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 08/12/2024

|| Relevant changes compared to the last edition are highlighted at the left margin. This version replaces all previous editions.

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