JM NMOC

Version 1.0 | Revision Date 03/14/2025 | Print Date 03/17/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : JM NMOC

Manufacturer or supplier's details

Company : Johns Manville
Address : P.O. Box 5108
Denver, CO USA 80217-5108
Telephone : +1-303-978-2000
Emergency telephone number : 24-Hour Number: +1-800-424-9300 (CHEMTREC)

Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.
Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION

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

Acute toxicity (Oral) : Category 4

Skin irritation : Category 2

Serious eye damage : Category 1

Germ cell mutagenicity : Category 1B

Carcinogenicity (Oral) : Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H340 May cause genetic defects.
H351 Suspected of causing cancer if swallowed.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Phosphoric trichloride, reaction products with propylene oxide	1244733-77-4	>= 10 - < 30
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	127087-87-0	>= 10 - < 30
2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1)	13674-84-5	>= 1 - < 5
N'-[3-(dimethylamino)propyl]-N,N-dimethylpropane-1,3-diamine	6711-48-4	>= 1 - < 5
1,1,3,3-Tetramethylguanidine	80-70-6	>= 1 - < 5
Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-	2212-32-0	>= 1 - < 5
1-Propanol, 2,2-dimethyl-, tribromo deriv.	36483-57-5	>= 1 - < 5

Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Remove person to fresh air. If signs/symptoms continue, get

		medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation develops or persists.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 30 minutes. If easy to do, remove contact lens, if worn. Protect unharmed eye. Continue rinsing eyes during transport to hospital.
If swallowed	:	DO NOT induce vomiting unless directed to do so by a physician or poison control center. Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician or Poison Control Centre immediately.
Most important symptoms and effects, both acute and delayed	:	Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause genetic defects. Suspected of causing cancer if swallowed.
Protection of first-aiders	:	If potential for exposure exists refer to Section 8 for specific personal protective equipment.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Dry chemical Carbon dioxide (CO2) Foam
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Cool closed containers exposed to fire with water spray.
Hazardous combustion products	:	carbon oxides Hydrogen chloride gas phosphorus oxides phenol nitrogen oxides hydrogen bromide
Specific extinguishing methods	:	Standard procedure for chemical fires.
Further information	:	Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. The product should not be allowed to enter drains, water

courses or the soil.

Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Fire or intense heat may cause violent rupture of packages.
Advice on safe handling	:	Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8.
Conditions for safe storage	:	Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected.
Materials to avoid	:	polymerisation initiators
Recommended storage temperature	:	50 - 100 °F / 10 - 38 °C
Further information on storage stability	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Protect from frost, heat and sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection		
Material	:	Protective gloves
Remarks	:	Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Eye protection	:	Wear safety glasses with side shields or goggles. Wear a faceshield or other full face protection if there is a

		potential for direct contact to the face with dusts, mists, or aerosols. Remove respiratory and skin/eye protection only after vapours have been cleared from the area.
Skin and body protection	:	Wear protective clothing, such as long-sleeved shirts and pants. Full protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place. Remove and wash contaminated clothing before re-use.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday. Written instructions for handling must be available at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	green, yellow
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	10.8, Concentration: 100 g/l
Melting point/range	:	Not applicable
Initial boiling point and boiling range	:	> 93 °C
Flash point	:	> 93.4 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.102 g/cm³
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity		
Viscosity, dynamic	:	180 - 200 mPa.s (25 °C)
Viscosity, kinematic	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Contact with isocyanates will cause polymerization. Stable under recommended storage conditions.
Conditions to avoid	:	Protect from frost, heat and sunlight. Exposure to moisture
Incompatible materials	:	Strong oxidizing agents isocyanates
Hazardous decomposition products	:	Hazardous decomposition products formed under fire conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : 1,125.044 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate : > 2,000 mg/kg Method: Calculation method

Components:

Phosphoric trichloride, reaction products with propylene oxide:

Acute oral toxicity	:	LD50 : 632 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 : > 7 mg/l Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 : > 2,000 mg/kg

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched:

Acute oral toxicity	:	LD50 (Rabbit, male and female): 657.2 mg/kg
Acute inhalation toxicity	:	Assessment: The substance or mixture has no acute inhalation toxicity

2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1):

Acute oral toxicity	:	LD50 (Rat, female): 632 mg/kg Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 7 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity Remarks: No mortality was observed.
Acute dermal toxicity	:	LD50 (Rabbit, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 Remarks: No mortality was observed.

N'-[3-(dimethylamino)propyl]-N,N-dimethylpropane-1,3-diamine:

Acute oral toxicity : LD50 (Rat, male and female): 1,250 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit, male): 370 mg/kg
Method: OECD Test Guideline 402

1,1,3,3-Tetramethylguanidine:

Acute oral toxicity : LD50 (Rat, male and female): 835 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is moderately toxic after single ingestion.

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:

Acute oral toxicity : (Rat, male and female): 2,570 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

1-Propanol, 2,2-dimethyl-, tribromo deriv.:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg

Acute inhalation toxicity : Remarks: Not classified. Not a likely route of exposure.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Remarks: No mortality was observed.

Skin corrosion/irritation

Components:

N'-[3-(dimethylamino)propyl]-N,N-dimethylpropane-1,3-diamine:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive after 3 minutes to 1 hour of exposure
Remarks: Based on data from similar materials

Skin corrosion/irritation

1,1,3,3-Tetramethylguanidine:
Species: Rabbit
Exposure time: 1 h
Method: OECD Test Guideline 404
Result: Corrosive after 3 minutes to 1 hour of exposure

Skin corrosion/irritation

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched:
Species: Rabbit
Result: irritating

Serious eye damage/eye irritation

N'-[3-(dimethylamino)propyl]-N,N-dimethylpropane-1,3-diamine:
Result: Corrosive

Serious eye damage/eye irritation

1,1,3,3-Tetramethylguanidine:
Species: Rabbit
Result: Irreversible effects on the eye
Exposure time: 1 h

Serious eye damage/eye irritation

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:
Species: Rabbit
Result: Blindness
Method: OECD Test Guideline 405

Serious eye damage/eye irritation

Causes serious eye irritation.
1-Propanol, 2,2-dimethyl-, tribromo deriv.:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Respiratory or skin sensitisation

Components:

1,1,3,3-Tetramethylguanidine:
Result: Does not cause skin sensitisation.
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Respiratory or skin sensitisation

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Not a skin sensitizer.

Germ cell mutagenicity

Components:

1,1,3,3-Tetramethylguanidine:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Test species: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative
GLP: yes

Germ cell mutagenicity

May cause genetic defects.
1-Propanol, 2,2-dimethyl-, tribromo deriv.:
Germ cell mutagenicity- Assessment : Positive result(s) from mutagenicity tests in mammals.
Evidence that the substance has potential to cause mutations to germ cells

Carcinogenicity

Suspected of causing cancer if swallowed.

Components:

2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1):
Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies (oral)

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.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA (29 CFR 1910 Subpart Z, Toxic and Hazardous Substances).

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

Components:

1,1,3,3-Tetramethylguanidine:
Effects on fertility :

Species: Rat
Sex: male and female
Application Route: Oral
NOAEL: 100 mg/kg,
F1: 100 mg/kg

Repeated dose toxicity

Components:

1,1,3,3-Tetramethylguanidine:
Species: Rat, male and female
NOAEL: 100 mg/kg
Application Route: Oral
Exposure time: 28 d
Method: OECD Test Guideline 422
GLP: yes

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Phosphoric trichloride, reaction products with propylene oxide:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 51 mg/l Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 131 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 82 mg/l Exposure time: 72 h Test Type: Growth inhibition Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 32 mg/l Exposure time: 21 d
Toxicity to microorganisms	:	EC50 (activated sludge): 784 mg/l Exposure time: 3 h Test Type: Respiration inhibition Method: ISO 8192

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): ca. 84.7 mg/l End point: mortality Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): ca. 23.066 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): ca. 19.485 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1):

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 51 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 131 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 82 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes Remarks: No toxicity at the limit of solubility
Toxicity to fish (Chronic toxicity)	:	NOEC: 5.2 mg/l Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 32 mg/l End point: mortality Exposure time: 21 d Test Type: semi-static test Method: OECD Test Guideline 211 GLP: yes
Toxicity to microorganisms	:	IC50 (activated sludge): 784 mg/l End point: Growth rate Exposure time: 3 h Test Type: Growth inhibition Method: ISO 8192 GLP: yes
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 33 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207 GLP: no

N'-[3-(dimethylamino)propyl]-N,N-dimethylpropane-1,3-diamine:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 21.4 mg/l End point: mortality Exposure time: 96 h Test Type: static test Method: DIN 38412 GLP: yes
Toxicity to daphnia and other	:	EC50 (Daphnia magna (Water flea)): 50.3 mg/l

aquatic invertebrates		End point: Immobilization Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Raphidocelis subcapitata (freshwater green alga)): 7.9 mg/l End point: Growth inhibition Exposure time: 72 h Test Type: static test Method: DIN 38412 GLP: yes
Toxicity to microorganisms	:	EC50 (activated sludge): > 1,000 mg/l End point: Respiratory function Exposure time: 3 h Test Type: static test Analytical monitoring: no Method: OECD Test Guideline 209 GLP: yes

1,1,3,3-Tetramethylguanidine:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to microorganisms	:	EC50 (activated sludge): 350 mg/l Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209 GLP: yes

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 54 mg/l End point: mortality Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (algae)): 54 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l
End point: Respiratory function
Exposure time: 0.5 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: yes

1-Propanol, 2,2-dimethyl-, tribromo deriv.:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 32 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 64 mg/l
Exposure time: 48 h
Test Type: acute toxicity test

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): 28 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic toxicity) : LC50 (Cyprinus carpio (Carp)): 5.6 mg/l
Exposure time: 14 d
Test Type: semi-static test
Method: OECD Test Guideline 204
GLP: yes

Toxicity to microorganisms : EC50 (activated sludge): 400 mg/l
Exposure time: 0.5 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

Persistence and degradability

Components:

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched:

Biodegradability : Result: Readily biodegradable.

2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1):

Biodegradability : Result: Inherently biodegradable.

Result: Not readily biodegradable.

1,1,3,3-Tetramethylguanidine:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Concentration: 4 mg/l
Result: Not readily biodegradable.
Biodegradation: 5.2 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: yes

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:

Biodegradability : Result: Not readily biodegradable.
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Bioaccumulative potential

Components:

Phosphoric trichloride, reaction products with propylene oxide:

Partition coefficient: n-octanol/water : log Pow: 2.68 (86 °F / 30 °C)
pH: 7.1

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched:

Partition coefficient: n-octanol/water : log Pow: 5.669 (77 °F / 25 °C)
pH: 7.5
Method: OECD Test Guideline 117

2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1):

Bioaccumulation : Bioconcentration factor (BCF): 0.8 - < 14

Partition coefficient: n-octanol/water : log Pow: 2.68 (86 °F / 30 °C)

N'-[3-(dimethylamino)propyl]-N,N-dimethylpropane-1,3-diamine:

Partition coefficient: n-octanol/water : log Pow: 0.214 (71.1 °F / 21.7 °C)
pH: 11.5
Method: OECD Test Guideline 107

1,1,3,3-Tetramethylguanidine:

Partition coefficient: n-octanol/water : log Pow: -0.49 (68 °F / 20 °C)
Method: OECD Test Guideline 107

Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]-:

Partition coefficient: n-octanol/water : Pow: 0.264 (ca. 72.0 °F / 22.2 °C)
log Pow: -0.584 (ca. 72.0 °F / 22.2 °C)
pH: 11.9
Method: OECD Test Guideline 107
GLP: yes

1-Propanol, 2,2-dimethyl-, tribromo deriv.:

Partition coefficient: n-octanol/water : log Pow: 2.6 (72.5 °F / 22.5 °C)

Mobility in soil

Components:

2-Propanol, 1-chloro-, 2,2',2''-phosphate; 2-Propanol, 1-chloro-, phosphate (3:1):

Distribution among environmental compartments : Koc: 324.2

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 : Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

Land transport
USDOT: Not classified as a dangerous good under transport regulations

Sea transport
IMDG: Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO: Not classified as a dangerous good under transport regulations

SECTION 15. REGULATORY INFORMATION

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals : No substances are subject to a Significant New Use Rule.

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D)	:	No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Serious eye damage or eye irritation Germ cell mutagenicity Carcinogenicity Skin corrosion or irritation Acute toxicity (any route of exposure)
SARA 302	:	This material does not contain any components with a section 302 EHS TPQ.
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 does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Phosphoric trichloride, reaction products with propylene oxide	1244733-77-4
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	127087-87-0

The components of this product are reported in the following inventories:

TSCA	:	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

SECTION 16. OTHER INFORMATION

Further information

Revision Date : 03/14/2025

Full text of other abbreviations

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 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

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