

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
N-methyl-2-pyrrolidone	872-50-4	5-10
tributoxyethyl phosphate	78-51-3	1-5
Dipropylene Glycol Monomethyl Ether (DPM)	34590-94-8	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES**First Aid Measures**

General Advice	Provide this SDS to medical personnel for treatment. If exposed or concerned: Get medical advice/attention.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects

Symptoms	Causes mild skin irritation. May damage fertility or the unborn child.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.**Specific Hazards Arising from the Chemical**

Not determined.

Hazardous Combustion Products Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). Phosphorus oxides.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** Use personal protective equipment as required. Avoid contact with eyes and skin. Only trained and properly protected personnel must be involved in clean-up operations.
- Environmental Precautions** See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

- Methods for Containment** Prevent further leakage or spillage if safe to do so. Prevent runoff to storm sewers and ditches leading to natural waterways. Prevent entry into waterways, sewer, basements or confined areas.
- Methods for Clean-Up** Dilute with water and mop up, or absorb with an inert material and place in appropriate waste container in accordance with local, state and federal guidelines. Dispose of contents/container to an approved waste disposal plant.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Store in original labeled container. Protect from direct sunlight.
- Incompatible Materials** None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m ³ (vacated) S* S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m ³ STEL: 150 ppm STEL: 900 mg/m ³
Amorphous silica 112926-00-8	-	(vacated) TWA: 6 mg/m ³ TWA: 20 mppcf : (80)/(% SiO ₂) mg/m ³ TWA	-

Appropriate engineering controls

- Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Wear safety glasses with side shields (or goggles).
Skin and Body Protection	Wear protective gloves and protective clothing.
Respiratory Protection	Wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid	Odor	Bland
Appearance	Milky white liquid	Odor Threshold	Not determined
Color	Milky white		
Property	Values	Remarks • Method	
pH	7.5-8.5		
Melting Point/Freezing Point	0 °C / 32 °F		
Boiling Point/Boiling Range	100 °C / 212		
Flash Point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid- Not applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	<4 kPa (<30 mmHg)		
Vapor Density	<1	(Air=1)	
Specific Gravity	1.05 gm/ml		
Water Solubility	Miscible in water		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	Not determined		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		
VOC Content (%)	7.9%		

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions.

Chemical Stability

Stable.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization	Hazardous polymerization does not occur.
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Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition ProductsCarbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). Phosphorous oxides.**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Product Information**

Eye Contact	Avoid contact with eyes.
Skin Contact	Causes mild skin irritation.
Inhalation	Do not inhale.
Ingestion	Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
N-methyl-2-pyrrolidone 872-50-4	= 3598 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h
tributoxyethyl phosphate 78-51-3	= 3000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 6.4 mg/L (Rat) 4 h
Di(ethylene glycol) ethyl ether 111-90-0	= 1920 mg/kg (Rat)	= 4200 µL/kg (Rabbit) = 6 mL/kg (Rat)	> 5240 mg/m ³ (Rat) 4 h
Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8	= 5230 mg/kg (Rat)	= 9500 mg/kg (Rabbit)	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Group 3 IARC components are "not classifiable as human carcinogens".

Chemical Name	ACGIH	IARC	NTP	OSHA
Amorphous silica 112926-00-8		Group 3		

Legend

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

Reproductive toxicity May damage fertility or the unborn child.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
N-methyl-2-pyrrolidone 872-50-4	500: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	832: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 1072: 96 h <i>Pimephales promelas</i> mg/L LC50 static 1400: 96 h <i>Poecilia reticulata</i> mg/L LC50 static		4897: 48 h <i>Daphnia magna</i> mg/L EC50
tributoxyethyl phosphate 78-51-3		10.4 - 12.0: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through		
Di(ethylene glycol) ethyl ether 111-90-0		11400 - 15700: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 11600 - 16700: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 10000: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 19100 - 23900: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 13400: 96 h <i>Salmo gairdneri</i> mg/L LC50 flow-through		3940 - 4670: 48 h <i>Daphnia magna</i> mg/L EC50
Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8		10000: 96 h <i>Pimephales promelas</i> mg/L LC50 static		1919: 48 h <i>Daphnia magna</i> mg/L LC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
N-methyl-2-pyrrolidone 872-50-4	-0.46
tributoxyethyl phosphate 78-51-3	4.78
Di(ethylene glycol) ethyl ether 111-90-0	-0.8
Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8	-0.064

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
N-methyl-2-pyrrolidone	Present	X		Present		Present	X	Present	X	X
tributoxyethyl phosphate	Present	X		Present		Present	X	Present	X	X
Dipropylene Glycol Monomethyl Ether (DPM)	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
N-methyl-2-pyrrolidone - 872-50-4	872-50-4	5-10	1.0
Di(ethylene glycol) ethyl ether - 111-90-0	111-90-0	1-5	1.0
Dipropylene Glycol Monomethyl Ether (DPM) - 34590-94-8	34590-94-8	1-5	1.0

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
N-methyl-2-pyrrolidone - 872-50-4	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
N-methyl-2-pyrrolidone 872-50-4	X	X	X
Di(ethylene glycol) ethyl ether 111-90-0	X		X
Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8	X	X	X
Amorphous silica 112926-00-8	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards Not determined	Flammability Not determined	Instability Not determined	Special Hazards Not determined
<u>HMIS</u>	Health Hazards 1	Flammability 0	Physical Hazards 0	Personal Protection B

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet