

# Safety Data Sheet

## Predator(TM) 6000

### 1. Product and company identification

**Product name** : Predator(TM) 6000  
**Synonym** : Morpholine, 4-(2-nitrobutyl)-; N-(2-Nitrobutyl)morpholine  
**CAS number** : 2224-44-4  
**Material uses** : Petrochemical industry: Biocide. Fuel additive.  
**Internal code** : 10262  
**System code** : 10262  
**Supplier** : Innospec Fuel Specialties LLC  
 8310 South Valley Highway  
 Suite 350  
 Englewood  
 CO, 80112  
 USA  
**Information contact** : 1-800-441-9547  
**e-mail address of person responsible for this SDS** : sdsinfo@innospecinc.com  
**NON-emergency enquiries** : corporatecommunications@innospecinc.com

#### Emergency telephone number

In USA, Canada and North America, 24 hour / 7 day emergency information for our product is provided by the CHEMTREC® Emergency Call Center based in the USA


**Country information** : **Emergency telephone number**  
 USA, Canada, Puerto Rico, Virgin Islands : +1 800 424 9300  
 In case of difficulties, or for ships at sea : +1 703 527 3887

In Europe, Middle East, Africa, Asia Pacific and South America  
 24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network



<b>Country information</b>	<b>Emergency telephone number</b>	<b>Location</b>
South America ( all countries )	: +1 215 207 0061	Philadelphia USA
Brazil	: +55 113 711 9144	Brazil
Mexico	: +52 555 004 8763	Mexico
Europe ( all countries ) Middle East, Africa ( French, Portuguese, English )	: +44 (0) 1235 239 670	London, UK
Middle East, Africa ( Arabic, French, English )	: +44 (0) 1235 239 671	Lebanon
Asia Pacific ( all countries except China )	: +65 3158 1074	Singapore
China	: +86 10 5100 3039	Beijing China

## Section 2. Hazards identification

<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Classification of the substance or mixture</b>	: FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3
<b>GHS label elements</b>	
<b>Hazard pictograms</b>	: 
<b>Signal word</b>	: Danger
<b>Hazard statements</b>	: H227 - Combustible liquid. H311 - Toxic in contact with skin. H302 - Harmful if swallowed.
<b>Precautionary statements</b>	
<b>Prevention</b>	: P280 - Wear protective gloves: > 8 hours (breakthrough time): polyvinyl chloride (PVC) , EVAL; < 1 hour (breakthrough time): butyl rubber , neoprene rubber , nitrile rubber. Wear eye or face protection: Recommended: splash goggles, face shield. Wear protective clothing: Recommended: safety apron; Possible: chemical-resistant protective suit. P210 - Keep away from flames and hot surfaces. - No smoking. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
<b>Response</b>	: P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. P302 + P361 + P352 + P312 + P363 - IF ON SKIN: Take off immediately all contaminated clothing. Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Wash contaminated clothing before reuse.
<b>Storage</b>	: P405 - Store locked up. P403 - Store in a well-ventilated place. P235 - Keep cool.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazards not otherwise classified</b>	: None known.
<b>Target organs</b>	: Contains material which may cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

See toxicological information (Section 11)

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Substance
<b>Chemical name</b>	: 4-(2-nitrobutyl)morpholine
<b>Other means of identification</b>	: Morpholine, 4-(2-nitrobutyl)-; N-(2-Nitrobutyl)morpholine

Ingredient name	%	CAS number
4-(2-nitrobutyl)morpholine	60 - 100	2224-44-4
morpholine	4.99 - 9.99	110-91-8
4,4'-(2-ethyl-2-nitropropane-1,3-diyl)bismorpholine	4.99 - 9.99	1854-23-5
1-nitropropane	0.99 - 4.99	108-03-2

**Date of issue/Date of revision** : 2015-05-22

## 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 or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## 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 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 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 case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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. If necessary, call a poison center or physician. 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. If necessary, call a poison center or physician. 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/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Toxic in contact with skin.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

**Date of issue/Date of revision** : 2015-05-22

## Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. 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** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

- Special protective actions for 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

- Flash point** : Closed cup: 71°C (159.8°F) [Pensky-Martens.]

## 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- For emergency responders** : If specialised 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 non-emergency 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. Use spark-proof tools and explosion-proof equipment. 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.

## Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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). 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. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. 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.

- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 10 to 35°C (50 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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
morpholine	<p><b>ACGIH TLV (United States, 4/2014). Absorbed through skin.</b>                      TWA: 20 ppm 8 hours.                      TWA: 71 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.</b>                      TWA: 20 ppm 8 hours.                      TWA: 70 mg/m<sup>3</sup> 8 hours.                      STEL: 30 ppm 15 minutes.                      STEL: 105 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013). Absorbed through skin.</b>                      TWA: 20 ppm 10 hours.                      TWA: 70 mg/m<sup>3</sup> 10 hours.                      STEL: 30 ppm 15 minutes.                      STEL: 105 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 2/2013). Absorbed through skin.</b>                      TWA: 20 ppm 8 hours.</p>



## Section 8. Exposure controls/personal protection

1-nitropropane

TWA: 70 mg/m<sup>3</sup> 8 hours.**ACGIH TLV (United States, 4/2014).**

TWA: 25 ppm 8 hours.

TWA: 91 mg/m<sup>3</sup> 8 hours.**OSHA PEL 1989 (United States, 3/1989).**

TWA: 25 ppm 8 hours.

TWA: 90 mg/m<sup>3</sup> 8 hours.**NIOSH REL (United States, 10/2013).**

TWA: 25 ppm 10 hours.

TWA: 90 mg/m<sup>3</sup> 10 hours.**OSHA PEL (United States, 2/2013).**

TWA: 25 ppm 8 hours.

TWA: 90 mg/m<sup>3</sup> 8 hours.**Appropriate engineering controls**

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**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. 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: safety glasses with side-shields. Recommended: splash goggles, face shield

**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. > 8 hours (breakthrough time): polyvinyl chloride (PVC) , EVAL  
< 1 hour (breakthrough time): butyl rubber , neoprene rubber , nitrile rubber

**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: safety apron  
Possible: chemical-resistant protective suit

**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.

## Section 8. Exposure controls/personal protection

**Respiratory protection** : Use a properly fitted, air-purifying or supplied-air 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. Possible: organic vapor (Type A) and particulate filter

**Personal protective equipment (Pictograms)** :



## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.

**Color** : Yellow or brown.

**Odor** : Amine-like.

**Odor threshold** : Not available.

**pH** : 9.5 to 10 [Conc. (% w/w): 1%]

**Melting point** : 10.5°C (50.9°F)

**Boiling point** : Decomposes. Not available.

**Flash point** : Closed cup: 71°C (159.8°F) [Pensky-Martens.]

**Evaporation rate** : Highest known value: 0.78 (1-nitropropane) Weighted average: 0.71 compared with butyl acetate

**Flammability (solid, gas)** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Lower and upper explosive (flammable) limits** : Greatest known range: Lower: 1.4% Upper: 11.2% (morpholine)

**Vapor pressure** : 0.1 kPa (0.8 mm Hg) (at 20°C)

**Vapor density** : Highest known value: 3.06 (Air = 1) (1-nitropropane). Weighted average: 3.02 (Air = 1)

**Specific gravity** : 1.1 [ASTM D891]

**Density** : 9.16 lbs/gal

**Solubility** : Partially soluble in the following materials: cold water, hot water.

**Solubility in water** : 31 g/l

**Partition coefficient: n-octanol/water** : Not applicable.

**Auto-ignition temperature** : 260°C (500°F)

**Decomposition temperature** : Not available.

**Viscosity** : Dynamic (room temperature): 18.2 mPa·s (18.2 cP)  
Kinematic (room temperature): 0.1655 cm<sup>2</sup>/s (16.55 cSt)  
Kinematic (40°C (104°F)): 0.07 cm<sup>2</sup>/s (7 cSt)

**Refractive Index** : 1.464

## 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** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

## Section 10. Stability and reactivity

**Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials

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

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Test	Species	Result	Dose
1-nitropropane	-	Rat	LD50 Oral	455 mg/kg
4-(2-nitrobutyl)morpholine	-	Rat	LC50 Inhalation Vapor	>2.33 ppm
	-	Rabbit	LD50 Dermal	420 mg/kg
	-	Rat	LD50 Oral	620 mg/kg

#### Potential chronic health effects

Not available.

#### Irritation/Corrosion

Product/ingredient name	Test	Species	Result
morpholine	-	Rabbit	Eyes - Severe irritant -
	-	Rabbit	Skin - Moderate irritant -

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

##### Classification

Product/ingredient name	OSHA	IARC	NTP
morpholine	-	3	-

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.



## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
morpholine	Acute EC50 28000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
4-(2-nitrobutyl)morpholine	EC50 0.35 mg/l Acute EC50 1.9 mg/l Acute LC50 1.1 mg/l Acute NOEC 1.77 mg/l	Algae Daphnia Fish - Oncorhynchus mykiss Daphnia	72 hours 48 hours 96 hours 48 hours

### Persistence and degradability

Product/ingredient name	Test	Result
4-(2-nitrobutyl)morpholine	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	11.9 to 27.2 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
4-(2-nitrobutyl)morpholine	-	-	Not readily
morpholine	-	-	Readily
1-nitropropane	-	-	Inherent

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
4-(2-nitrobutyl)morpholine	-	<100	low
4-(2-nitrobutyl)morpholine	1.12	<100	low
morpholine	-0.86	<2.8	low
4,4'-(2-ethyl-2-nitropropane-1,3-diyl)bismorpholine	1.98	3	low
1-nitropropane	0.87	1.3	low

### Mobility in soil


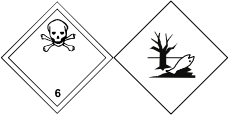

Soil/water partition coefficient (K<sub>oc</sub>) : 50

## Section 13. Disposal considerations

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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3142	UN3142	UN3142
UN proper shipping name	Disinfectants, liquid, toxic, n.o.s. (4-(2-nitrobutyl)morpholine). Marine pollutant (4-(2-nitrobutyl)morpholine)	DISINFECTANT, LIQUID, TOXIC, N.O.S. (4-(2-nitrobutyl)morpholine). Marine pollutant (4-(2-nitrobutyl)morpholine)	Disinfectant, liquid, toxic, n.o.s. (4-(2-nitrobutyl)morpholine)
Transport hazard class(es)	6.1 	6.1 	6.1 
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	No.
Additional information	<p>The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes.</p> <p><b>Limited quantity</b> Yes.</p> <p><b>Packaging instruction</b> <b>Passenger aircraft</b> Quantity limitation: 60 L</p> <p><b>Cargo aircraft</b> Quantity limitation: 220 L</p> <p><b>Special provisions</b> IB3, T7, TP1, TP28</p>	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p><b>Emergency schedules (EmS)</b> F-A, S-A</p> <p><b>Special provisions</b> 223, 274</p>	<p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p><b>Passenger and Cargo Aircraft</b> Quantity limitation: 60 L Packaging instructions: 655</p> <p><b>Cargo Aircraft Only</b>Quantity limitation: 220 L Packaging instructions: 663</p> <p><b>Limited Quantities - Passenger Aircraft</b>Quantity limitation: 2 L Packaging instructions: Y642</p> <p><b>Special provisions</b> A3, A4</p>

**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.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 4(a) final test rules: 1-nitropropane  
TSCA 12(b) one-time export: 1-nitropropane  
United States inventory (TSCA 8b): All components are listed or exempted.

### SARA 302/304

#### Composition/information on ingredients

No products were found.

### SARA 311/312

#### **Classification**

: Fire hazard  
Immediate (acute) health hazard

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## Section 15. Regulatory information

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
4-(2-nitrobutyl)morpholine	60 - 100	No.	No.	No.	Yes.	No.
morpholine	4.99 - 9.99	Yes.	No.	No.	Yes.	No.
1-nitropropane	0.99 - 4.99	Yes.	No.	No.	Yes.	No.

### State regulations

- Massachusetts** : The following components are listed: MORPHOLINE; 1-NITROPROPANE
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: MORPHOLINE; 1-NITROPROPANE; PROPANE, 1-NITRO-
- Pennsylvania** : The following components are listed: MORPHOLINE; PROPANE, 1-NITRO-
- California Prop. 65** : CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product is not known to the State of California to cause cancer, birth defects or other reproductive harm.

### International lists

- National inventory**
- Australia inventory (AICS)** : All components are listed or exempted.
- Canada inventory** : All components are listed or exempted.
- China inventory (IECSC)** : All components are listed or exempted.
- Europe inventory** : All components are listed or exempted.
- Japan inventory (ENCS)** : All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC)** : All components are listed or exempted.
- Philippines inventory (PICCS)** : All components are listed or exempted.
- Korea inventory (KECI)** : All components are listed or exempted.
- Taiwan inventory (TCSI)** : All components are listed or exempted.
- United States inventory (TSCA 8b)** : All components are listed or exempted.

Our REACH (pre-) registrations DO NOT cover the following:

1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
  2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations
- Customers and other third parties importing and/or re-importing our products into Europe will need either:
- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
  - In the case of importation only, to make use of the "Only Representative" provisions, if available.

## Section 16. Other information

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

Health	*	3
Flammability		2
Physical hazards		3

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 of 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.)

Date of issue/Date of revision : 2015-05-22

## Section 16. Other information



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

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 identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of 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.

### Classification according to Directive 67/548/EEC [DSD] or Classification according to Directive 1999/45/EC [DPD]

- Risk phrases** : R21/22- Harmful in contact with skin and if swallowed.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Safety phrases** : S36/37- Wear suitable protective clothing and gloves.  
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

### History

- Date of printing** : 2015-05-22
- Date of issue/Date of revision** : 2015-05-22
- Date of previous issue** : No previous validation
- Version** : 1
- Key to abbreviations** : 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

▣ Indicates information that has changed from previously issued version.

### Notice to reader

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

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