



# SAFETY DATA SHEET

ANGUS CHEMICAL COMPANY

Product name : NIPAR S-20™ Nitropropane Solvent

Issue Date: 11/02/2017

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ANGUS CHEMICAL COMPANY encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name NIPAR S-20™ Nitropropane Solvent

### Manufacturer or supplier's details

Company name of supplier ANGUS CHEMICAL COMPANY

Address 1500 E. LAKE COOK ROAD  
Buffalo Grove IL 60089-6553

Customer Information Number +1-847-808-3711

E-mail address NAR\_CC@ANGUS.COM

Emergency telephone number 800-424-9300

### Recommended use of the chemical and restrictions on use

Recommended use Chemical intermediate.  
For industrial use.  
The ANGUS Chemical Company recommends that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact the Customer Information Group (see Section 1 of this data sheet).

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Flammable liquids Category 3

Acute toxicity (Oral) Category 4

Acute toxicity (Inhalation)	Category 3
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1B

**GHS Label elements, including precautionary statements**

Hazard pictograms



Signal word	Danger
Hazard statements	Flammable liquid and vapour. Harmful if swallowed. Toxic if inhaled. Suspected of causing genetic defects. May cause cancer.

Precautionary statements

**Prevention:**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician.  
IF exposed or concerned: Get medical advice/ attention.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

**Disposal:**

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

#### Other hazards

None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance.

#### Components

Chemical Name	CAS-No.	Concentration (% w/w)
2-Nitropropane	79-46-9	> 96.0 %
1-Nitropropane	108-03-2	<= 3.0 %
Nitroethane	79-24-3	<= 2.0 %

### 4. FIRST AID MEASURES

If inhaled	Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.
In case of skin contact	Wash off with plenty of water.
In case of eye contact	Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
If swallowed	If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention immediately.
Most important symptoms and effects, both acute and delayed	Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.
Protection of first-aiders	First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).

	If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	<p>Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.</p> <p>No specific antidote.</p> <p>May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help.</p> <p>Maintain adequate ventilation and oxygenation of the patient.</p> <p>Skin contact may aggravate preexisting dermatitis.</p> <p>Repeated excessive exposure may aggravate preexisting liver disease.</p>

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## 5. FIREFIGHTING MEASURES

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Suitable extinguishing media	<p>Water fog or fine spray.</p> <p>Carbon dioxide fire extinguishers.</p> <p>Foam.</p> <p>Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.</p> <p>Dry chemical fire extinguishers rated tri-class ABC (containing monoammonium phosphate).</p>
Unsuitable extinguishing media	<p>Do not use direct water stream.</p> <p>Straight or direct water streams may not be effective to extinguish fire.</p> <p>Do not use bicarbonate based dry chemical extinguishers (Class BC).</p>
Specific hazards during firefighting	<p>Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.</p> <p>Container may rupture from gas generation in a fire situation.</p> <p>Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.</p> <p>Flammable mixtures may exist within the vapor space of containers at room temperature.</p> <p>Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.</p> <p>Contamination with sensitizing compounds (amines, alkalies, acids, heavy metal salts) can cause formation of shock sensitive or highly reactive materials.</p>
Hazardous combustion products	<p>During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.</p> <p>Combustion products may include and are not limited to:</p> <p>Carbon dioxide.</p> <p>Carbon monoxide.</p> <p>Nitrogen oxides.</p>
Further information	<p>Keep people away. Isolate fire and deny unnecessary entry.</p> <p>Do not use direct water stream. May spread fire.</p>

Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container.

Move container from fire area if this is possible without hazard.

Water may not be effective in extinguishing fire. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.

Stay upwind. Keep out of low areas where gases (fumes) can accumulate.

Eliminate ignition sources.

Do not use bicarbonate based dry chemical extinguishers (Class BC).

Hand held ABC type dry chemical, carbon dioxide or water extinguishers may be used for small fires.

Reaction with alkaline bicarbonates or other strong alkalis can form salts that may reignite when dry.

If bicarbonate extinguishers are used and salts are formed, keep residues wet with water and dispose of in accordance with local regulations.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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## 6. ACCIDENTAL RELEASE MEASURES

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Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment.

Isolate area.

Keep unnecessary and unprotected personnel from entering the area.

Keep personnel out of low areas.

Keep upwind of spill.

Ventilate area of leak or spill.

No smoking in area.

For large spills, warn public of downwind explosion hazard. Vapor explosion hazard. Keep out of sewers.

Refer to section 7, Handling, for additional precautionary measures.

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up

Pump with explosion-proof equipment. If available, use foam to smother or suppress.

Contain spilled material if possible.  
 Ground and bond all containers and handling equipment.  
 Collect in suitable and properly labeled containers.  
 See Section 13, Disposal Considerations, for additional information.

## 7. HANDLING AND STORAGE

Advice on safe handling	<p>Handling operations that can promote accumulation of static charges include but are not limited to mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations.</p> <p>Electrically bond and ground all containers and equipment before transfer or use of material.                  Avoid breathing vapor.                  Keep away from heat, sparks and flame.                  No smoking, open flames or sources of ignition in handling and storage area.                  Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.                  Never use air pressure for transferring product.                  Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.                  Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation.                  Avoid contact with strong alkalis, amines or acids.                  Do not swallow.                  Wash thoroughly after handling.                  Keep container closed.                  See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.                  Use only with adequate ventilation.</p>
Conditions for safe storage	<p>Minimize sources of ignition, such as static build-up, heat, spark or flame.                  Corrosive when wet (greater than 0.2 weight percent). Store in stainless steel or aluminum if wet.                  Keep container closed.                  Do not store in:                  Copper.                  Copper alloys.                  Lead and its alloys.                  Brass.</p>

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

CAS-No.	Components	Value type (Form of	Control parameters /	Basis

		exposure)	Permissible concentration	
79-46-9	2-Nitropropane	TWA	10 ppm	ACGIH
79-46-9	2-Nitropropane	TWA	25 ppm 90 mg/m3	OSHA Z-1
79-46-9	2-Nitropropane	TWA	10 ppm 35 mg/m3	OSHA P0
108-03-2	1-Nitropropane	TWA	25 ppm	ACGIH
108-03-2	1-Nitropropane	TWA	25 ppm 90 mg/m3	NIOSH REL
108-03-2	1-Nitropropane	TWA	25 ppm 90 mg/m3	OSHA Z-1
108-03-2	1-Nitropropane	TWA	25 ppm 90 mg/m3	OSHA P0
79-24-3	Nitroethane	TWA	100 ppm	ACGIH
79-24-3	Nitroethane	TWA	100 ppm 310 mg/m3	NIOSH REL
79-24-3	Nitroethane	TWA	100 ppm 310 mg/m3	OSHA Z-1
79-24-3	Nitroethane	TWA	100 ppm 310 mg/m3	OSHA P0

**Engineering measures**

Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point.  
 Lethal concentrations may exist in areas with poor ventilation. Use engineering controls to maintain airborne level below exposure limit requirements or guidelines.  
 If there are no applicable exposure limit requirements or guidelines, use only in enclosed systems or with local exhaust ventilation.

**Personal protective equipment**

Respiratory protection

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.  
 In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.  
 Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.  
 If there are no applicable exposure limit requirements or guidelines, use an approved respirator.  
 When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

Hand protection

Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA").

Polyethylene. Butyl rubber. Chlorinated polyethylene.  
 Examples of acceptable glove barrier materials include:  
 Viton. Neoprene. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR").  
 NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye protection	Use safety glasses (with side shields).
Skin and body protection	Wear clean, body-covering clothing.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	Liquid.
Color	Colorless
Odor	Mild
Odor Threshold	No test data available
pH	No test data available
Melting point/range	No data available.
Freezing point	-91.3 °C (-132.3 °F) Method: Measured
Boiling point/boiling range	119 - 122 °C (246 - 252 °F) Method: Measured
Flash point	26 °C (79 °F)  Method: Tag Closed Cup ASTM D56 Test Type: closed cup
Evaporation rate	1.1 Method: Literature
Flammability (solid, gas)	No data available.
Upper explosion limit	No test data available
Lower explosion limit	>= 2.6 %(V) Medium: Vapour Method: Literature
Vapor Pressure	13.00 mmHg (20 °C)



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	Method: Measured
Relative Vapor Density (air = 1)	3 Method: Calculated.
Relative density	No data available.
Density	0.99 g/cm <sup>3</sup> (20 °C) Method: Measured
Water solubility	17.2 G/L (20 °C) Method: Measured
Partition coefficient: n-octanol/water	log Pow: 1.35 (20 °C) Method: Measured Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Auto-ignition temperature	389 - 399 °C Method: EC Method A15
Decomposition temperature	No test data available
Viscosity	
Viscosity, dynamic	0.77 mPa.s (20 °C) Method: Literature
Viscosity, kinematic	No test data available
Explosive properties	No data available.
Oxidizing properties	No data available.
Molecular weight	89.09 g/mol Method: Literature

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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Chemical stability	Stable under recommended storage conditions. See Storage, Section 7.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid	Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials	<p>Pressure build-up can be rapid.</p> <p>If product reacts with amines, bicarbonates or other alkaline materials to form salts, keep salts wet with water and dispose of in accordance with local regulations.</p> <p>Avoid unintended contact with:</p> <p>Aldehydes. Alkali metal hydroxides. Alkenes. Amines. Ammonium nitrate. Heavy metal oxides. Reducing agents. Strong acids. Strong oxidizers. Bases.</p> <p>Avoid contact with metals such as: Copper. Copper alloys. Brass. Lead and its alloys.</p> <p>Avoid contact with absorbent materials such as: Clay-based absorbents. Activated carbon.</p>
Hazardous decomposition products	<p>Decomposition products depend upon temperature, air supply and the presence of other materials.</p> <p>Decomposition products can include and are not limited to: Water. Carbon monoxide. Nitrogen.</p>

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information on this product or its components appear in this section when such data is available.*

### Acute toxicity

#### **Product:**

Acute oral toxicity

Remarks: Low toxicity if swallowed.  
Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50 (Rat): 725 mg/kg

Acute inhalation toxicity

Remarks: Easily attainable vapor concentrations may cause serious adverse effects, even death.  
Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.  
Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.  
May cause nausea and vomiting.  
May cause central nervous system depression.

LC50 (Rat, male): 400 ppm

Exposure time: 6 h  
 Test atmosphere: vapour

LC50 (Rat, female): 720 ppm  
 Exposure time: 6 h  
 Test atmosphere: vapour

**Acute dermal toxicity**

Remarks: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50  
 (Rabbit, male and female): > 2,000 mg/kg  
 Symptoms: No deaths occurred at this concentration.  
 Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**

**Product:**

Remarks: May cause drying and flaking of the skin.  
 Prolonged exposure not likely to cause significant skin irritation.

**Serious eye damage/eye irritation**

**Product:**

Remarks: May cause slight temporary eye irritation.

**Respiratory or skin sensitization**

**Product:**

Remarks: For skin sensitization:  
 Did not cause allergic skin reactions when tested in guinea pigs.

Remarks: For respiratory sensitization:  
 No relevant data found.

**Germ cell mutagenicity**

**Product:**

Germ cell mutagenicity - Assessment                      In vitro tests showed mutagenic effects which were not observed with in vivo test.

**Carcinogenicity**

**Product:**

Has caused cancer in laboratory animals.

Carcinogenicity - Assessment                      Possible human carcinogen

**IARC**    Group 2B: Possibly carcinogenic to humans

2-Nitropropane    79-46-9

**OSHA**    No component of this product present at levels greater than or

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equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

Reasonably anticipated to be a human carcinogen

2-Nitropropane

79-46-9

**Teratogenicity****Product**

No relevant data found.

**Mutagenicity****Product**

Animal genetic toxicity studies were negative in some cases and positive in other cases. In vitro genetic toxicity studies were positive.

**Reproductive toxicity****Product:**

In animal studies, did not interfere with reproduction.

**STOT - single exposure****Product:**

Assessment: Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Repeated dose toxicity****Product:**

Remarks: In animals, effects have been reported on the following organs:

Liver.

Lung.

**Aspiration toxicity****Product:**

Aspiration Hazard

May be harmful if swallowed and enters airways.

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity****Product:**

Toxicity to fish

Remarks: Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50 (Pimephales promelas (fathead minnow)): > 612 mg/l

Exposure time: 96.0 h

Test Type: static test

	LC50 (Danio rerio (zebra fish)): 620 mg/l Exposure time: 48.0 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 19.00 mg/l Exposure time: 48.0 h Test Type: flow-through test Method: OECD Test Guideline 202 or Equivalent
Toxicity to algae	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 887 mg/l End point: Growth rate inhibition Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 or Equivalent
	ErC50 (Pseudokirchneriella subcapitata (green algae)): 403 mg/l End point: Growth rate inhibition Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 201 or Equivalent
Toxicity to bacteria	EC50 (activated sludge): 310 mg/l End point: Respiration rates. Exposure time: 30 min Test Type: static test Method: OECD 209 Test Remarks: For similar material(s):

### Persistence and degradability

#### **Product:**

Biodegradability	Result: Not readily biodegradable. Remarks: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
	Biodegradation: < 0.1 % Exposure time: 28 d Method: OECD Test Guideline 301D or Equivalent Remarks: 10-day Window: Fail
	Biodegradation: 8 - 14 % Exposure time: 28 d Method: OECD Test Guideline 301C or Equivalent Remarks: 10-day Window: Not applicable
	Biodegradation: 0.8 % Exposure time: 5 d Method: GSF Activated Sludge Test Remarks: 10-day Window: Fail
ThOD	1.800 mg/mg  Method: Estimated.

Photodegradation Rate constant: Degradation half life: 64 d  
Method: Estimated.

### Bioaccumulative potential

#### Product:

Bioaccumulation Species: Fish.  
Bioconcentration factor (BCF): < 0.1  
Exposure time: 3 d  
Method: Measured

Partition coefficient: n-octanol/water log Pow: 1.35 (20 °C)  
Method: Measured  
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

### Mobility in soil

#### Product:

Distribution among environmental compartments Koc: 25  
Method: Estimated.  
Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

### Other adverse effects

#### Product:

Results of PBT and vPvB assessment This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

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## 13. DISPOSAL CONSIDERATIONS

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### Disposal methods

Waste from residues DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.  
All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.  
Regulations may vary in different locations.  
Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.  
THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information.  
FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.  
Landfill.  
ANGUS HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL.

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**14. TRANSPORT INFORMATION**


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**International Regulation****IATA-DGR**

UN/ID No.	UN 2608
Proper shipping name	Nitropropanes
Class	3
Packing group	III
Labels	Flammable Liquids
Packing instruction (cargo aircraft)	366
Packing instruction (passenger aircraft)	355

**IMDG-Code**

UN number	UN 2608
Proper shipping name	NITROPROPANES
Class	3
Packing group	III
Labels	3
EmS Code	F-E, S-D
Marine pollutant	no
Remarks	Stowage category A

**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 (DOT) – NON BULK**

UN/ID/NA number	2608
Proper shipping name	NITROPROPANES
Class	3
Packing group	III
Labels	Class 3 - Flammable Liquid
ERG Code	129
Marine pollutant	no

**49 CFR (DOT) - BULK**

UN/ID/NA number	2608
Proper shipping name	NITROPROPANES
Class	3
Packing group	III
Labels	Class 3 - Flammable Liquid
ERG Code	129
Marine pollutant	no

Reportable Quantity: 2-NITROPROPANE

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

**15. REGULATORY INFORMATION**

**OSHA Hazards** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)
2-Nitropropane	79-46-9	10

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

**SARA 311/312 Hazards** Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**SARA 302** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** The following components are subject to reporting levels established by SARA Title III, Section 313:

Cas No.	Component
79-46-9	2-Nitropropane

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (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 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations**

**Massachusetts Right To Know**

Massachusetts Right to Know List of Chemicals and Hazard Classifications

Cas No.	Component
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79-46-9	2-Nitropropane
108-03-2	1-Nitropropane
79-24-3	Nitroethane

**Pennsylvania Right To Know**

The following chemicals are listed because of the additional requirements of Pennsylvania law:

<b>Cas No.</b>	<b>Component</b>
79-46-9	2-Nitropropane
108-03-2	1-Nitropropane
79-24-3	Nitroethane

**New Jersey Right To Know**

The following chemicals are listed because of the additional requirements of New Jersey law:

<b>Cas No.</b>	<b>Component</b>
79-46-9	2-Nitropropane
108-03-2	1-Nitropropane
79-24-3	Nitroethane

**California Prop. 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

<b>Cas No.</b>	<b>Component</b>
79-46-9	2-Nitropropane

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

United States TSCA Inventory  
All Components OK

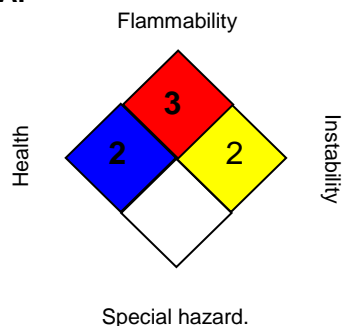
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## 16. OTHER INFORMATION

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### Further information

#### NFPA:



#### HMIS III:

<b>HEALTH</b>	<b>1*</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

Revision Date                      11/02/2017  
 Version                                0.0

Identification Number:            000040000085

US / EN

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.

### Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods