



SAFETY DATA SHEET

ANGUS CHEMICAL COMPANY

Product name : NIPAR S-10™ 3001, Nitroparaffin 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-10™ 3001, Nitroparaffin 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 Fuel additive.
Industrial solvent.
Chemical intermediate.
Dispersant in coatings.
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 4 |

GHS Label elements, including precautionary statements

Hazard pictograms



Signal word

Warning

Hazard statements

Flammable liquid and vapour.

Harmful if swallowed or if inhaled

Precautionary statements

Prevention:

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/ 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 you feel unwell.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.

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) |
|----------------|----------|-----------------------|
| 1-Nitropropane | 108-03-2 | >= 98.5 % |

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 | Do not induce vomiting. Call a physician and/or transport to emergency facility 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 | Skin contact may aggravate preexisting dermatitis. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. No specific antidote. Maintain adequate ventilation and oxygenation of the patient. |

5. FIREFIGHTING MEASURES

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

6. ACCIDENTAL RELEASE MEASURES

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.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Refer to section 7, Handling, for additional precautionary measures.

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.
Use non-sparking tools in cleanup operations.
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

Do not use positive displacement pumps with this material.
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.
 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.
 Do not swallow.
 Wash thoroughly after handling.
 Keep container closed.
 Use only with adequate ventilation.
 See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage

Store in a cool, dry place.
 Keep container closed.
 Minimize sources of ignition, such as static build-up, heat, spark or flame.
 Do not store in:
 Copper.
 Copper alloys.
 Lead and its alloys.
 Brass.
 Store in the following material(s):
 Mild steel.
 Aluminum.
 Stainless steel.
 Corrosive when wet (greater than 0.2 weight percent). Store in stainless steel or aluminum if wet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| CAS-No. | Components | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|----------|----------------|-------------------------------|--|-----------|
| 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 |

Engineering measures

Local exhaust ventilation may be necessary for some operations.
 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 with adequate 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: Polyethylene. Butyl rubber. Chlorinated polyethylene. Viton. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Examples of acceptable glove barrier materials include: 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).
 If exposure causes eye discomfort, use a full-face respirator.

Skin and body protection

Wear clean, body-covering clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Liquid.

| | |
|----------------------------------|---|
| Color | Colorless |
| Odor | Mild |
| Odor Threshold | No test data available |
| pH | Not applicable |
| Melting point/range | -104 °C (-155 °F) Method: Literature |
| Freezing point | -104 °C (-155 °F) Method: Literature |
| Boiling point/boiling range | 131.2 °C (268.2 °F) (1,358.756 hPa) Method: Literature |
| Flash point | 36 °C (97 °F) (1,013 hPa) Method: EC Method A9 Test Type: closed cup |
| Evaporation rate | 0.88 Method: Literature |
| Flammability (solid, gas) | No data available. |
| Upper explosion limit | No test data available |
| Lower explosion limit | >= 2.6 %(V) (20 °C) Method: Literature |
| Vapor Pressure | 10.2 mmHg (25 °C) Method: Measured |
| Relative Vapor Density (air = 1) | 3.06 (25 °C) Method: Literature |
| Relative density | 1.003 (20 °C) Method: Literature |
| Density | 1.003 g/cm3 |
| Water solubility | 1.5 % (25 °C) Method: Measured |

| | |
|--|--|
| Partition coefficient: n-octanol/water | log Pow: 0.79 Method: Measured Bioconcentration potential is low (BCF < 100 or Log Pow < 3). |
| Auto-ignition temperature | > 400 °C 1,012.1 hPa Method: EC Method A15 |
| Decomposition temperature | No test data available |
| Viscosity | |
| Viscosity, dynamic | 0.84 mPa.s (20 °C) Method: Literature (Brookfield Viscosity) |
| Viscosity, kinematic | No test data available |
| Explosive properties | No data available. |
| Oxidizing properties | No data available. |
| Molecular weight | 89 g/mol Method: Calculated. |

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

10. STABILITY AND REACTIVITY

| | |
|------------------------|---|
| Chemical stability | Stable under recommended storage conditions. See Storage, Section 7. |
| Conditions to avoid | Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. |
| Incompatible materials | 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. Avoid unintended contact with: Aldehydes. Alkali metal hydroxides. Alkenes. Amines. Ammonium nitrate. Heavy metal oxides. Reducing agents. Strong acids. Strong oxidizers. Bases. Avoid contact with metals such as: Copper. |

Copper alloys.
Brass.
Lead and its alloys.
Avoid contact with absorbent materials such as:
Clay-based absorbents.
Activated carbon.

Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials.
Decomposition products can include and are not limited to:
Water.
Carbon monoxide.
Nitrogen.

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

Product:

Acute oral toxicity

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

LD50 (Rat, female): 484 mg/kg

LD50 (Rat, male): 528 mg/kg

Acute inhalation toxicity

Remarks: Vapor concentrations are attainable which could be hazardous on single exposure.
Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.
May cause respiratory irritation and central nervous system depression.

LC50 (Rat): 15.95 mg/l

Exposure time: 4 h

Test atmosphere: gas

Acute dermal toxicity

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

LD50

(Rabbit): > 2,000 mg/kg

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.
Vapor may cause eye irritation experienced as mild discomfort and redness.

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.

Carcinogenicity

Product:

Did not cause cancer in laboratory animals.

| | |
|-------------|---|
| 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. |
| 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. |

Teratogenicity

Product

Did not cause birth defects or any other fetal effects in laboratory animals.

Mutagenicity

Product

Animal genetic toxicity studies were negative.
In vitro genetic toxicity studies were negative.

Reproductive toxicity

Product:

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

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.

Aspiration toxicity

Product:

Aspiration Hazard

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish

Remarks: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50 (Oncorhynchus mykiss (rainbow trout)): 227 mg/l
Exposure time: 96.0 h
Test Type: flow-through test
Method: OECD Test Guideline 203 or Equivalent

LC50 (Danio rerio (zebra fish)): 205 mg/l
Exposure time: 48.0 h
Test Type: static test
Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 380.00 mg/l
Exposure time: 48.0 h
Test Type: static test
Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 456 mg/l
End point: Growth rate inhibition
Exposure time: 96 h
Method: OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

EC50 (activated sludge): 14 mg/l
End point: Respiration rates.
Exposure time: 0.5 min
Test Type: static test
Method: OECD 209 Test

Persistence and degradability

Product:

Biodegradability

Remarks: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Biodegradation: 23.3 %
Exposure time: 5 d
Method: GSF Activated Sludge Test
Remarks: 10-day Window: Fail

Inoculum: activated sludge
Concentration: 2.99 mg/l
Biodegradation: 9 %
Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent
Remarks: 10-day Window: Fail

Inoculum: activated sludge, domestic, non-adapted
Concentration: 100 mg/l
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent
Remarks: 10-day Window: Fail

Chemical Oxygen Demand (COD) 0.770 mg/mg Method: Estimated.

ThOD 1.800 mg/mg
Method: Estimated.

Photodegradation Test Type: Half-life (indirect photolysis)
Sensitiser: OH radicals
Rate constant: Degradation half life: 37 d
Method: Estimated.

Bioaccumulative potential

Product:

Bioaccumulation

Species: Fish.
Bioconcentration factor (BCF): 1.3
Exposure time: 3 d
Method: Measured

Partition coefficient: n-octanol/water log Pow: 0.79
Method: Measured
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Mobility in soil

Product:

Distribution among

Koc: 71

environmental compartments Method: Estimated.
Remarks: Potential for mobility in soil is high (Koc between 50 and 150).

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).

13. DISPOSAL CONSIDERATIONS

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.

14. TRANSPORT INFORMATION

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

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

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

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 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).

US State Regulations

Massachusetts Right To Know

Massachusetts Right to Know List of Chemicals and Hazard Classifications

| Cas No. | Component |
|----------------|------------------|
| 108-03-2 | 1-Nitropropane |
| 79-46-9 | 2-Nitropropane |

Pennsylvania Right To Know

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

| Cas No. | Component |
|----------------|------------------|
| 108-03-2 | 1-Nitropropane |
| 79-46-9 | 2-Nitropropane |

New Jersey Right To Know

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

| Cas No. | Component |
|----------------|------------------|
| 108-03-2 | 1-Nitropropane |

California Prop. 65

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

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

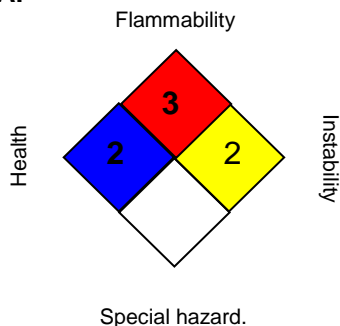
The components of this product are reported in the following inventories:

United States TSCA Inventory
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

| | |
|-----------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |

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

Revision Date 11/02/2017
Version 0.0

Identification Number: 000040000040

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