

## 1. Identification

<b>Product identifier</b>	<b>Nitrosamines Mixture</b>	
<b>Other means of identification</b>		
Item	M-CRFAN1K99	
<b>Recommended use</b>	For Laboratory Use Only	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	Chem Service, Inc.	
<b>Address</b>	660 Tower Lane West Chester, PA 19380 United States	
<b>Telephone</b>	Toll Free	800-452-9994
	Direct	610-692-3026
<b>Website</b>	www.chemservice.com	
<b>E-mail</b>	info@chemservice.com	
<b>Emergency phone number</b>	Chemtrec US	800-424-9300
	Chemtrec outside US	+1 703-527-3887

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Highly flammable liquid and vapor. Causes skin irritation. May cause drowsiness or dizziness. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. 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 mist or vapor. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/eye protection/face protection.
<b>Response</b>	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/doctor if you feel unwell. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
<b>Supplemental information</b>	Not applicable.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Isooctane	2,2,4-Trimethylpentane	540-84-1	99 - 100
N-Nitrosodi-n-butylamine		924-16-3	0.00075
N-Nitrosomorpholine		59-89-2	0.00075
N-Nitrosopiperidine		100-75-4	0.00075
N-Nitrosopyrrolidine		930-55-2	0.00075
N-Nitrosodi-n-propylamine		621-64-7	0.0005
N-Nitrosodiethylamine		55-18-5	0.00025
N-Nitrosodimethylamine		62-75-9	0.00025

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation. Skin irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

**7. Handling and storage**

**Precautions for safe handling**

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. 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. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Isooctane (CAS 540-84-1)	PEL	2350 mg/m3 500 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Isooctane (CAS 540-84-1)	Ceiling	1800 mg/m3 385 ppm
	TWA	350 mg/m3
		75 ppm

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

**US ACGIH Threshold Limit Values: Skin designation**

N-Nitrosodimethylamine (CAS 62-75-9)

Can be absorbed through the skin.

<b>Appropriate engineering controls</b>	Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid
<b>Color</b>	Not available.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-161.41 °F (-107.45 °C) estimated
<b>Initial boiling point and boiling range</b>	210.63 °F (99.24 °C) estimated
<b>Flash point</b>	40.1 °F (4.5 °C) estimated
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	1.1 % estimated
<b>Flammability limit - upper (%)</b>	4.7 % estimated
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	59.93 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	784 °F (417.78 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	0.69861 g/cm3 estimated
<b>Flammability class</b>	Flammable IB estimated
<b>Specific gravity</b>	0.7 estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.

<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

### Information on toxicological effects

**Acute toxicity** Narcotic effects. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	Species	Test Results
Isooctane (CAS 540-84-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 33.52 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
N-Nitrosodimethylamine (CAS 62-75-9)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	57 mg/l, 4 Hours
	Rat	78 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	27 mg/kg
<i>Other</i>		
LD50	Rat	34 mg/kg
N-Nitrosodi-n-butylamine (CAS 924-16-3)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Hamster	2150 mg/kg
	Rat	1200 mg/kg
<i>Other</i>		
LD50	Hamster	561 mg/kg
	Rat	1200 mg/kg
N-Nitrosodi-n-propylamine (CAS 621-64-7)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	480 mg/kg
<i>Other</i>		
LD50	Hamster	600 mg/kg
	Rat	487 mg/kg

Components	Species	Test Results
N-Nitrosomorpholine (CAS 59-89-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	282 mg/kg
<i>Other</i>		
LD50	Rat	320 mg/kg
N-Nitrosopiperidine (CAS 100-75-4)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	200 mg/kg
<i>Other</i>		
LD50	Hamster	110 mg/kg
	Rat	60 mg/kg
N-Nitrosopyrrolidine (CAS 930-55-2)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	900 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
N-Nitrosodiethylamine (CAS 55-18-5)	2A Probably carcinogenic to humans.
N-Nitrosodimethylamine (CAS 62-75-9)	2A Probably carcinogenic to humans.
N-Nitrosodi-n-butylamine (CAS 924-16-3)	2B Possibly carcinogenic to humans.
N-Nitrosodi-n-propylamine (CAS 621-64-7)	2B Possibly carcinogenic to humans.
N-Nitrosomorpholine (CAS 59-89-2)	2B Possibly carcinogenic to humans.
N-Nitrosopiperidine (CAS 100-75-4)	2B Possibly carcinogenic to humans.
N-Nitrosopyrrolidine (CAS 930-55-2)	2B Possibly carcinogenic to humans.
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
N-Nitrosodiethylamine (CAS 55-18-5)	Reasonably Anticipated to be a Human Carcinogen.
N-Nitrosodimethylamine (CAS 62-75-9)	Reasonably Anticipated to be a Human Carcinogen.
N-Nitrosodi-n-butylamine (CAS 924-16-3)	Reasonably Anticipated to be a Human Carcinogen.
N-Nitrosodi-n-propylamine (CAS 621-64-7)	Reasonably Anticipated to be a Human Carcinogen.
N-Nitrosomorpholine (CAS 59-89-2)	Reasonably Anticipated to be a Human Carcinogen.
N-Nitrosopiperidine (CAS 100-75-4)	Reasonably Anticipated to be a Human Carcinogen.
N-Nitrosopyrrolidine (CAS 930-55-2)	Reasonably Anticipated to be a Human Carcinogen.
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
N-Nitrosodimethylamine (CAS 62-75-9)	Cancer
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Narcotic effects.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Components	Species	Test Results
N-Nitrosodiethylamine (CAS 55-18-5)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 698 - 860 mg/l, 96 hours
N-Nitrosodimethylamine (CAS 62-75-9)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 832 - 1062 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Partition coefficient n-octanol / water (log Kow)**

Isooctane	5.18
N-Nitrosodiethylamine	0.48
N-Nitrosodimethylamine	-0.57
N-Nitrosodi-n-butylamine	1.92
N-Nitrosodi-n-propylamine	1.36
N-Nitrosomorpholine	-0.44
N-Nitrosopiperidine	0.36
N-Nitrosopyrrolidine	-0.19

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**US RCRA Hazardous Waste P List: Reference**

N-Nitrosodimethylamine (CAS 62-75-9) P082

**US RCRA Hazardous Waste U List: Reference**

N-Nitrosodiethylamine (CAS 55-18-5) U174  
 N-Nitrosodi-n-butylamine (CAS 924-16-3) U172  
 N-Nitrosodi-n-propylamine (CAS 621-64-7) U111  
 N-Nitrosopiperidine (CAS 100-75-4) U179  
 N-Nitrosopyrrolidine (CAS 930-55-2) U180

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

**DOT**

<b>UN number</b>	UN1262
<b>UN proper shipping name</b>	Octanes, solution, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB2, T4, TP1
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

<b>UN number</b>	UN1262
<b>UN proper shipping name</b>	Octanes solution
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	3H
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed.
<b>Cargo aircraft only</b>	Allowed.

**IMDG**

<b>UN number</b>	UN1262
<b>UN proper shipping name</b>	OCTANES SOLUTION, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>EmS</b>	F-E, S-E
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**DOT**



**IATA; IMDG**



**Marine pollutant**





## 15. Regulatory information

### US federal regulations

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

One or more components are not listed on TSCA.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

N-Nitrosopyrrolidine (CAS 930-55-2) 0.1 % One-Time Export Notification only.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Isooctane (CAS 540-84-1) Listed.  
N-Nitrosodiethylamine (CAS 55-18-5) Listed.  
N-Nitrosodimethylamine (CAS 62-75-9) Listed.  
N-Nitrosodi-n-butylamine (CAS 924-16-3) Listed.  
N-Nitrosodi-n-propylamine (CAS 621-64-7) Listed.  
N-Nitrosomorpholine (CAS 59-89-2) Listed.  
N-Nitrosopiperidine (CAS 100-75-4) Listed.  
N-Nitrosopyrrolidine (CAS 930-55-2) Listed.

#### SARA 304 Emergency release notification

N-Nitrosodimethylamine (CAS 62-75-9) 10 LBS

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

N-Nitrosodimethylamine (CAS 62-75-9) Cancer  
Liver  
Acute toxicity

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
N-Nitrosodimethylamine	62-75-9	10	1000 lbs		

**SARA 311/312 Hazardous chemical** No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Isooctane (CAS 540-84-1)  
N-Nitrosodimethylamine (CAS 62-75-9)  
N-Nitrosomorpholine (CAS 59-89-2)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

Isooctane (CAS 540-84-1)  
N-Nitrosodiethylamine (CAS 55-18-5)  
N-Nitrosodimethylamine (CAS 62-75-9)  
N-Nitrosodi-n-butylamine (CAS 924-16-3)  
N-Nitrosodi-n-propylamine (CAS 621-64-7)  
N-Nitrosomorpholine (CAS 59-89-2)  
N-Nitrosopiperidine (CAS 100-75-4)  
N-Nitrosopyrrolidine (CAS 930-55-2)

#### US. New Jersey Worker and Community Right-to-Know Act

N-Nitrosodiethylamine (CAS 55-18-5) 500 LBS  
N-Nitrosodimethylamine (CAS 62-75-9) 500 LBS  
N-Nitrosodi-n-butylamine (CAS 924-16-3) 500 LBS  
N-Nitrosodi-n-propylamine (CAS 621-64-7) 500 LBS  
N-Nitrosomorpholine (CAS 59-89-2) 500 LBS  
N-Nitrosopiperidine (CAS 100-75-4) 500 LBS

## US. Pennsylvania RTK - Hazardous Substances

N-Nitrosodiethylamine (CAS 55-18-5)  
N-Nitrosodimethylamine (CAS 62-75-9)  
N-Nitrosodi-n-butylamine (CAS 924-16-3)  
N-Nitrosodi-n-propylamine (CAS 621-64-7)  
N-Nitrosomorpholine (CAS 59-89-2)  
N-Nitrosopiperidine (CAS 100-75-4)  
N-Nitrosopyrrolidine (CAS 930-55-2)

## US. Rhode Island RTK

Isooctane (CAS 540-84-1)  
N-Nitrosodiethylamine (CAS 55-18-5)  
N-Nitrosodimethylamine (CAS 62-75-9)  
N-Nitrosodi-n-butylamine (CAS 924-16-3)  
N-Nitrosodi-n-propylamine (CAS 621-64-7)  
N-Nitrosomorpholine (CAS 59-89-2)  
N-Nitrosopiperidine (CAS 100-75-4)  
N-Nitrosopyrrolidine (CAS 930-55-2)

## US. California Proposition 65

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

### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

N-Nitrosodiethylamine (CAS 55-18-5)	Listed: October 1, 1987
N-Nitrosodimethylamine (CAS 62-75-9)	Listed: October 1, 1987
N-Nitrosodi-n-butylamine (CAS 924-16-3)	Listed: October 1, 1987
N-Nitrosodi-n-propylamine (CAS 621-64-7)	Listed: January 1, 1988
N-Nitrosomorpholine (CAS 59-89-2)	Listed: January 1, 1988
N-Nitrosopiperidine (CAS 100-75-4)	Listed: January 1, 1988
N-Nitrosopyrrolidine (CAS 930-55-2)	Listed: October 1, 1987

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

Issue date	09-08-2014
Version #	01
NFPA ratings	Health: 2 Flammability: 3 Instability: 0

## Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

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