

# N,N-Bis(trifluoromethanesulfonyl)imide, 20mM in nitromethane

Safety Data Sheet 8169306S

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/13/2016

Version: 1.0

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture  
 Product name : N,N-Bis(trifluoromethanesulfonyl)imide, 20mM in nitromethane  
 Product code : 8169-3-06S  
 Synonyms : N,N-Bis(trifluoromethanesulfonyl)imide acid, 20mM in nitromethane

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Laboratory chemicals  
 Manufacture of substances  
 Scientific research and development

### 1.3. Details of the supplier of the safety data sheet

SynQuest Laboratories, Inc.  
 P.O. Box 309  
 Alachua, FL 32615 - United States of America  
 T (386) 462-0788 - F (386) 462-7097  
[info@synquestlabs.com](mailto:info@synquestlabs.com) - [www.synquestlabs.com](http://www.synquestlabs.com)

### 1.4. Emergency telephone number

Emergency number : (844) 523-4086 (3E Company - Account 10069)

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### Classification (GHS-US)

Flam. Liq. 3	H226 - Flammable liquid and vapour
Self-react. A	H240 - Heating may cause an explosion
Acute Tox. 4 (Oral)	H302 - Harmful if swallowed
Acute Tox. 3 (Inhalation:dust,mist)	H331 - Toxic if inhaled
Skin Irrit. 2	H315 - Causes skin irritation
Eye Irrit. 2A	H319 - Causes serious eye irritation
Carc. 1B	H350 - May cause cancer
STOT SE 3	H335 - May cause respiratory irritation

Full text of H-phrases: see section 16

### 2.2. Label elements

#### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H226 - Flammable liquid and vapor  
 H240 - Heating may cause an explosion  
 H302 - Harmful if swallowed  
 H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H331 - Toxic if inhaled  
 H335 - May cause respiratory irritation  
 H350 - May cause cancer

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use  
 P202 - Do not handle until all safety precautions have been read and understood  
 P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking  
 P220 - Keep/Store away from clothing/.../combustible materials  
 P233 - Keep container tightly closed  
 P234 - Keep only in original container  
 P240 - Ground/bond container and receiving equipment

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P241 - Use explosion-proof electrical/ventilating/lighting equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P261 - Avoid breathing fumes, mist, spray, vapors  
P264 - Wash skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301+P312 - If swallowed: Call a POISON CENTER or doctor/ physician if you feel unwell  
P302+P352 - If on skin: Wash with plenty of soap and water  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P308+P313 - If exposed or concerned: Get medical advice/attention  
P311 - Call a POISON CENTER or doctor/physician  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P321 - Specific treatment (see supplemental first aid instructions on this label)  
P330 - Rinse mouth  
P332+P313 - If skin irritation occurs: Get medical advice/attention  
P337+P313 - If eye irritation persists: Get medical advice/attention  
P362+P364 - Take off contaminated clothing and wash it before reuse  
P370+P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish  
P370+P380+P375 - In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P411 - Store at temperatures not exceeding ...°C/...°F  
P420 - Store away from other materials  
P501 - Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Nitromethane	(CAS No) 75-52-5	> 99	Flam. Liq. 3, H226 Self-react. A, H240 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1B, H350 STOT SE 3, H335
N,N-Bis(trifluoromethanesulfonyl)imide	(CAS No) 82113-65-3	< 1	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Move the affected personnel away from the contaminated area.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Get immediate medical advice/attention.
First-aid measures after skin contact	: Wash with plenty of soap and water. Get immediate medical advice/attention.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get immediate medical advice/attention.

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### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishing media appropriate for surrounding fire.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition generates: Carbon oxides. Hydrogen fluoride. Nitrogen oxides. Sulfur oxides.

Explosion hazard : Risk of explosion if heated under confinement. Use water spray or fog for cooling exposed containers. May form flammable/explosive vapor-air mixture.

### 5.3. Advice for firefighters

Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Wear gas tight chemically protective clothing in combination with self contained breathing apparatus. For further information refer to section 8: "Exposure controls/personal protection".

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, fumes, vapor or spray.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level. Consider the risk of potentially explosive atmospheres. Eliminate every possible source of ignition.

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Dike for recovery or absorb with appropriate material.

Methods for cleaning up : Take up large spills with pump or vacuum and finish with dry chemical absorbent. Use explosion-proof equipment. Take up small spills with dry chemical absorbent. Sweep or shovel spills into appropriate container for disposal. Ventilate area.

Other information : For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Do not breathe fumes, mist, spray, vapors. Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from ignition sources (including static discharges). Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

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Storage conditions	: Keep container closed when not in use. Keep away from ignition sources. Keep contents under inert gas.
Incompatible materials	: Refer to Section 10 on Incompatible Materials.
Storage area	: Store in dry, cool, well-ventilated area.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Nitromethane (75-52-5)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Thyroid eff; URT irr; lung dam
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	250 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

#### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hand protection	: Protective gloves. 29 CFR 1910.138: Hand Protection.
Eye protection	: Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory Protection.
Other information	: Safety shoes. 29 CFR 1910.136: Foot Protection.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Colourless.
Odor	: Odourless.
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture : • Nitromethane: 105 g/l (at 20 °C)
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

#### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

#### 10.3. Possibility of hazardous reactions

May polymerize.

#### 10.4. Conditions to avoid

Keep away from heat, sparks and flame.

#### 10.5. Incompatible materials

Amines. Copper. Strong acids. Strong bases. Strong oxidizing agents. Strong reducing agents.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of fire, see Section 5.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Inhalation:dust,mist: Toxic if inhaled.

N,N-Bis(trifluoromethanesulfonyl)imide, 20mM in nitromethane	
ATE US (oral)	949.495 mg/kg body weight
ATE US (dust, mist)	0.505 mg/l/4h

Nitromethane (75-52-5)	
LD50 oral rat	940 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 12.75 mg/l (Exposure time: 1 h)
ATE US (oral)	940.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h
ATE US (vapors)	3.000 mg/l/4h
ATE US (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer.

Nitromethane (75-52-5)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified  
Specific target organ toxicity (single exposure) : May cause respiratory irritation.  
  
Specific target organ toxicity (repeated exposure) : Not classified  
  
Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Nitromethane (75-52-5)	
LC50 fish 1	< 278 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

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### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Nitromethane (75-52-5)	
BCF fish 1	1.4
Log Pow	-0.34 - 0.17

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.  
Waste disposal recommendations : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Additional information : Recycle the material as far as possible.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1261 Nitromethane, 3, II  
UN-No.(DOT) : UN1261  
Proper Shipping Name (DOT) : Nitromethane  
Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202  
DOT Packaging Bulk (49 CFR 173.xxx) : None  
DOT Packaging Exceptions (49 CFR 173.xxx) : 150  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : Forbidden  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L  
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.  
Other information : No supplementary information available.

### TDG

No additional information available

### Transport by sea

UN-No. (IMDG) : 1261  
Proper Shipping Name (IMDG) : NITROMETHANE  
Class (IMDG) : 3 - Flammable liquids  
Packing group (IMDG) : II - substances presenting medium danger

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### Air transport

UN-No. (IATA)	: 1261
Proper Shipping Name (IATA)	: Nitromethane
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Nitromethane	CAS No 75-52-5	> 99%
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#### Nitromethane (75-52-5)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting	0.1 %
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### 15.2. International regulations

#### CANADA

#### N,N-Bis(trifluoromethanesulfonyl)imide (82113-65-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### Nitromethane (75-52-5)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

#### N,N-Bis(trifluoromethanesulfonyl)imide (82113-65-3)

Listed on ELINCS (European List of Notified Chemical Substances)

### National regulations

#### N,N-Bis(trifluoromethanesulfonyl)imide (82113-65-3)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

#### Nitromethane (75-52-5)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican national Inventory of Chemical Substances)

### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

Nitromethane (75-52-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	39 µg/day

#### Nitromethane (75-52-5)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List

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### SECTION 16: Other information

Full text of H-phrases:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 1B	Carcinogenicity Category 1B
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3
Self-react. A	Self-reactive substances and mixtures Category A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H240	Heating may cause an explosion
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H350	May cause cancer

NFPA health hazard

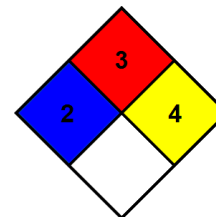
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 4 - Readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.



HMIS III Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

\* - Chronic (long-term) health effects may result from repeated overexposure

Flammability

: 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical

: 4 Severe Hazard - Materials that are readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.

SDS US (GHS HazCom 2012)

*The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.*