



N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 6/26/2019 Revision date: 5/18/2023 Supersedes: 6/26/2019 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE
Product code : ULM-10857-S

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Cambridge Isotope Laboratories, Inc.
50 Frontage Rd
01810
ANDOVER, MA, 01810
USA
T 1-800-322-1174
cilsales@isotope.com - www.isotope.com

1.4. Emergency telephone number

Emergency number : 1-703-741-5970
Chemtrec 1-800-424-9300 24 hours

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Acute toxicity (dermal) Category 4	H312	Harmful in contact with skin
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Carcinogenicity Category 2	H351	Suspected of causing cancer (Dermal, Inhalation, oral)
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs (blood, central nervous system, liver, respiratory system) through prolonged or repeated exposure (Dermal, Inhalation, oral)

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning

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Hazard statements (GHS US)	: H302+H312 - Harmful if swallowed or in contact with skin H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation H336 - May cause drowsiness or dizziness H351 - Suspected of causing cancer (Dermal, Inhalation, oral) H373 - May cause damage to organs (blood, central nervous system, liver, respiratory system) through prolonged or repeated exposure (Dermal, Inhalation, oral)
Precautionary statements (GHS US)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust, fume, gas, mist, spray, vapors. P261 - Avoid breathing dust, fume, gas, mist, spray, vapors. P264 - Wash Both hands 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 eye protection, face protection, protective clothing, protective gloves. P301+P312 - If swallowed: Call a doctor, a POISON CENTER if you feel unwell. P302+P352 - If on skin: Wash with plenty of water. 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. P312 - Call a doctor, a POISON CENTER if you feel unwell. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see Hazard pictograms (CLP) 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 - Take off contaminated clothing and wash before reuse. P362+P364 - Take off contaminated clothing and wash it before reuse. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents/container to Comply with applicable regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
METHYLENE CHLORIDE UNLABELED	CAS-No.: 75-09-2	99.925	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H336 STOT SE 3, H335 STOT RE 2, H373
N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED	CAS-No.: 61445-55-4	0.075	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. stomach.
Symptoms/effects	: May cause drowsiness or dizziness. Suspected of causing cancer (in contact with skin, if inhaled, if swallowed). May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Harmful in contact with skin. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	:	Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Wear recommended personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	:	Use personal protective equipment as required. Ventilate spillage area. Do not breathe dust, fume, gas, mist, spray, vapors. Avoid contact with skin, eyes and clothing.
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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".
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6.2. Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

For containment	:	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
Methods for cleaning up	:	For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust, fume, spray, gas, mist, vapors. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing.
Hygiene measures	:	Wash contaminated clothing before reuse. 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	:	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Containers which are opened should be properly resealed and kept upright to prevent leakage.
Storage conditions	:	Store in freezer (-20°C). Protect from light.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	50 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Remark (ACGIH)	Central Nervous system impairment. Carboxyhemoglobinemia. Substances for which there is a Biological Exposure Index or Indices (see BEI section). Confirmed animal carcinogen with unknown relevance to humans. Potential Occupational Carcinogen See Appendix A.
USA - ACGIH - Biological Exposure Indices	
BEI	Component: Methylene chloride CAS-No.: 75-09-2 Parameters: Dichloromethane Value: 0.3000 mg/l Biological specimen: Urine Basis: ACGIH - Biological Exposure Indices (BEI) Remarks: End of shift (As soon as possible after exposure ceases)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL STEL [1]	435 mg/m ³ Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
OSHA PEL STEL [2]	125 ppm Basis: OSHA Specially Regulated Chemicals/Carcinogens California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
OSHA PEL C	87 mg/m ³ Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
OSHA PEL C [ppm]	25 ppm Basis: OSHA Specially Regulated Chemicals/Carcinogens California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
Remark (OSHA)	Substance listed; for mor information see OSHA document 1910.1052. See Table Z-2. This section applies to all occupational exposures to methylene chloride (MC). Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula CH ₂ Cl ₂ . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 8.9 g/mole. OSHA Specially regulated carcinogen.
METHYLENE CHLORIDE UNLABELED (75-09-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	50 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Remark (ACGIH)	Central Nervous system impairment. Carboxyhemoglobinemia. Substances for which there is a Biological Exposure Index or Indices (see BEI section). Confirmed animal carcinogen with unknown relevance to humans. Potential Occupational Carcinogen See Appendix A.
USA - ACGIH - Biological Exposure Indices	
BEI	Component: Methylene chloride CAS-No.: 75-09-2 Parameters: Dichloromethane Value: 0.3000 mg/l Biological specimen: Urine Basis: ACGIH - Biological Exposure Indices (BEI) Remarks: End of shift (As soon as possible after exposure ceases)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL STEL [1]	435 mg/m ³ Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
OSHA PEL STEL [2]	125 ppm Basis: OSHA Specially Regulated Chemicals/Carcinogens California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
OSHA PEL C	87 mg/m ³ Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202
OSHA PEL C [ppm]	25 ppm Basis: OSHA Specially Regulated Chemicals/Carcinogens California permissible exposure limits for chemical contaminants (Title 8, Article 107) see section 5202

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METHYLENE CHLORIDE UNLABELED (75-09-2)

Remark (OSHA)	Substance listed; for mor information see OSHA document 1910.1052. See Table Z-2. This section applies to all occupational exposures to methylene chloride (MC). Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment. Methylene chloride (MC) means an organic compound with chemical formula CH ₂ Cl ₂ . Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 8.9 g/mole. OSHA Specifically regulated carcinogen.
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N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED (61445-55-4)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.

Materials for protective clothing:

Wear suitable protective clothing and gloves

Hand protection:

Wear suitable protective clothing and gloves

Eye protection:

Wear eye protection. Chemical goggles or face shield with safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing, gloves and eye/face protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Colorless
Odor	: Sweet, penetrating, ether-like odor
Odor threshold	: No data available
pH	: No data available

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Melting point	: -97 °C (-143 °F)
Freezing point	: No data available
Boiling point	: 39.8 – 40 °C (103.6 - 104 °F)
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: 0.71
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 470.9 hPa (353.2 mmHg) at 20 °C (68 °F)
Relative vapor density at 20°C	: 2.93 - (Air = 1.0)
Relative density	: No data available
Density	: 1.325 g/ml at 25 °C (77 °F)
Molecular mass	: 84.93 g/mol
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: 1.25
Auto-ignition temperature	: 556.1 °C (1,033.0 °F); 622.0 °C (1,223.6 °F)
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: 12 – 19 % (V)
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sparks. Open flame. Direct sunlight. Protect from sunlight.

10.5. Incompatible materials

Alkali metals. Aluminum. Strong oxidizing agents. Bases. Magnesium. Strong acids. Strong bases. Vinyl.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.

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Acute toxicity (inhalation) : Not classified

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg (OECD Test Guideline 402)
LC50 Inhalation - Rat	52000 mg/m ³
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (vapors)	52 mg/l/4h
ATE US (dust, mist)	52 mg/l/4h

METHYLENE CHLORIDE UNLABELED (75-09-2)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg (OECD Test Guideline 402)
LC50 Inhalation - Rat	52000 mg/m ³
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (vapors)	52 mg/l/4h
ATE US (dust, mist)	52 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 : Suspected of causing cancer (Dermal, Inhalation, oral).

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE	
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

METHYLENE CHLORIDE UNLABELED (75-09-2)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified
STOT-single exposure : May cause drowsiness or dizziness. May cause respiratory irritation.

METHYLENE CHLORIDE UNLABELED (75-09-2)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs (blood, central nervous system, liver, respiratory system) through prolonged or repeated exposure (Dermal, Inhalation, oral).

METHYLENE CHLORIDE UNLABELED (75-09-2)	
STOT-repeated exposure	May cause damage to organs (blood, central nervous system, liver, respiratory system) through prolonged or repeated exposure (Dermal, Inhalation, oral).

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

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Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. stomach.
Symptoms/effects	: May cause drowsiness or dizziness. Suspected of causing cancer (in contact with skin, if inhaled, if swallowed). May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure (in contact with skin, if inhaled, if swallowed).
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Harmful in contact with skin. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE	
LC50 - Fish [1]	193 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 - Crustacea [1]	1682 mg/l Daphnia magna (Water flea) - 48 h
NOEC (chronic)	130 mg/l Cyprinodon variegatus (sheepshead minnow) - 96 h
METHYLENE CHLORIDE UNLABELED (75-09-2)	
LC50 - Fish [1]	193 mg/l Pimephales promelas (fathead minnow) - 96 h
EC50 - Crustacea [1]	1682 mg/l Daphnia magna (Water flea) - 48 h
NOEC (chronic)	130 mg/l Cyprinodon variegatus (sheepshead minnow) - 96 h

12.2. Persistence and degradability

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE	
Biodegradation	< 26 % - Not readily biodegradable. (OECD Test Guideline 301C)
METHYLENE CHLORIDE UNLABELED (75-09-2)	
Biodegradation	< 26 % - Not readily biodegradable. (OECD Test Guideline 301C)

12.3. Bioaccumulative potential

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE	
Partition coefficient n-octanol/water (Log Pow)	1.25
Bioaccumulative potential	Does not accumulate in organisms.
METHYLENE CHLORIDE UNLABELED (75-09-2)	
Partition coefficient n-octanol/water (Log Pow)	1.25
Bioaccumulative potential	Does not accumulate in organisms.

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects

Other adverse effects : Disposal must be done according to official regulations.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN1593

UN-No. (TDG) : UN1593

UN-No. (IMDG) : 1593

UN-No. (IATA) : 1593

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Dichloromethane

Proper Shipping Name (TDG) : DICHLOROMETHANE

Proper Shipping Name (IMDG) : DICHLOROMETHANE

Proper Shipping Name (IATA) : Dichloromethane

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 6.1

Hazard labels (DOT) : 6.1



TDG

Transport hazard class(es) (TDG) : 6.1

Hazard labels (TDG) : 6.1



IMDG

Transport hazard class(es) (IMDG) : 6.1

Hazard labels (IMDG) : 6.1

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IATA

Transport hazard class(es) (IATA) : 6.1
Hazard labels (IATA) : 6.1



14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1593
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
IP8 - Ammonia solutions may be transported in rigid or composite plastic IBCs (31H1, 31H2 and 31HZ1) that have successfully passed, without leakage or permanent deformation, the hydrostatic test specified in 178.814 of this subchapter at a test pressure that is not less than 1.5 times the vapor pressure of the contents at 55 C (131 F).
N36 - Aluminum or aluminum alloy construction materials are permitted only for halogenated hydrocarbons that will not react with aluminum.
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
DOT Packaging Exceptions (49 CFR 173.xxx) : 153
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 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.

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TDG

UN-No. (TDG) : UN1593
Explosive Limit and Limited Quantity Index : 5 L
Excepted quantities (TDG) : E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 60 L
Emergency Response Guide (ERG) Number : 160

IMDG

Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
IBC special provisions (IMDG) : B8
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP2
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES
Stowage category (IMDG) : A
Segregation (IMDG) : SGG10
Flash point (IMDG) : '
Properties and observations (IMDG) : Colourless, volatile liquid with heavy vapours. Boiling point: 40°C. When involved in a fire, evolves extremely toxic fumes (phosgene). Toxic if swallowed, by skin contact or by inhalation.
MFAG-No : 160

IATA

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y642
PCA limited quantity max net quantity (IATA) : 2L
PCA packing instructions (IATA) : 655
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 663
CAO max net quantity (IATA) : 220L
ERG code (IATA) : 6L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
METHYLENE CHLORIDE UNLABELED	75-09-2	Present	Active	R

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE

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Name	CAS-No.	Listing	Commercial status	Flags
N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED	61445-55-4	Not present	-	

METHYLENE CHLORIDE UNLABELED (75-09-2)

Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ

1000 lb

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard
Delayed (chronic) health hazard

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED (61445-55-4)

SARA Section 302 Threshold Planning Quantity (TPQ)

Not subject to reporting requirements of the United States SARA Section 302.

15.2. International regulations

CANADA

METHYLENE CHLORIDE UNLABELED (75-09-2)

Listed on the Canadian DSL (Domestic Substances List)

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED (61445-55-4)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.

METHYLENE CHLORIDE UNLABELED (75-09-2)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE

U.S. - California - Proposition 65 - Carcinogens List

Yes

U.S. - California - Proposition 65 - Developmental Toxicity

No

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

No

N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE

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N-NITROSO-N-METHYL-4-AMINOBTYRIC ACID UNLABELED 1 MG/ML IN METHYLENE CHLORIDE	
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

METHYLENE CHLORIDE UNLABELED (75-09-2)					
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)	Maximum allowable dose level (MADL)
Yes	No	No	No	50 µg/day ; 200 µg/day (inhalation)	

Component	State or local regulations
METHYLENE CHLORIDE UNLABELED(75-09-2)	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

SECTION 16: Other information

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

Revision date

: 05/18/2023

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of H-phrases	
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.