TCI EUROPE N.V.

SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

Revision number: 1 **Revision date:** 10/03/2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: 2-Nitropropane
Product code: N0249

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

Identified uses: Reagents.

1.3 Details of the supplier of the safety data sheet

Supplier:

TCI EUROPE N.V.
Boerenveldseweg 6
Haven 1063
B-2070 Zwijndrecht
Telephone: +32(0)3 735 07 00
E-mail: sales-eu@tcichemicals.com

1.4 Emergency telephone number: +32(0)70 245 245

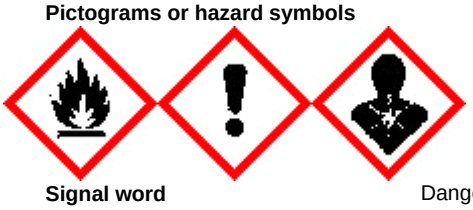
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids	Category 3
Acute toxicity (Oral)	Category 4
Acute toxicity (Inhalation)	Category 4
Carcinogenicity	Category 1B

2.2 Label elements

Pictograms or hazard symbols



Signal word	Danger
Hazard statements	H226-Flammable liquid and vapour. H302+H332-Harmful if swallowed or if inhaled. H350-May cause cancer.
Precautionary statements	P261-Avoid breathing mist, vapours or spray. P280-Wear protective gloves, protective clothing, face protection. P303+P361+P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P304+P340+P312-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P308+P313-IF exposed or concerned: Get medical advice or attention. P370+P378-In case of fire: Use dry chemical or dry sand to extinguish.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:	Not applicable
vPvB:	Not applicable

SECTION 3: Composition/information on ingredients

3.1 Substances

Components:	2-Nitropropane
Percent:	>95.0%(GC)
CAS RN:	79-46-9
EC-No:	201-209-1
Chemical Formula:	$C_3H_7NO_2$

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Call a POISON CENTER or doctor/physician.

Ingestion: Call a POISON CENTER or doctor/physician. Rinse mouth.

Protection of first-aiders: A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media: Water (It may scatter and spread fire.)

5.2 Special hazards arising from the substance or mixture

Explosion risk in case of fire. Fight fire remotely due to the risk of explosion.
Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

5.3 Advice for firefighters

Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so. When extinguishing fire, be sure to wear personal protective equipment

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc

6.2 Environmental precautions

Prevent product from entering drains

6.3 Methods and materials for containment and cleaning up

Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Be careful not to cause leakage, overflow, or dispersion. Steam should not be generated unnecessarily. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Avoid shock and friction. Wash hands and face before breaks and immediately after handling the product. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid all contact!

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up.
Be sure not to give the container unexpected impacts, such as falling down or falling off. Store away from incompatible materials such as oxidizing agents.
Light-sensitive

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

ACGIH TLV(TWA):	10 ppm
OSHA PEL(TWA):	25 ppm

8.2 Exposure controls Install a closed system or local exhaust. Also install safety shower and eye bath.

Respiratory protection:	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
Hand protection:	Impervious gloves.
Eye protection:	Safety goggles. A face-shield, if the situation requires.
Skin and body protection:	Impervious protective clothing. Protective boots, if the situation requires.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state (20°C):	Liquid
Form:	Clear
Colour:	Colorless - Very pale yellow
Odour:	Fruity
Odour threshold:	70 ppm
pH:	No data available
Melting point/freezing point:	-91°C
Boiling point/range:	120°C
Flash point:	24°C
Evaporation rate(Butyl Acetate=1):	No data available
Flammability(solid, gas):	No data available
Flammability or explosive limits:	
Lower:	2.6%
Upper:	11%
Vapour pressure:	1.7kPa/20°C
Vapour density:	3.1
Relative density:	0.99
Solubility(ies):	
[Water]	Slightly soluble (1.7g/100mL, 25°C)
[Other solvents]	
Miscible:	Many organic solvents
Soluble:	Chloroform
Partition coefficient: n-octanol/water:	0.93
Autoignition temperature:	428°C
Decomposition temperature:	No data available
Dynamic Viscosity:	No data available
Kinematic viscosity:	No data available

9.2 Other safety information No data available

SECTION 10: Stability and reactivity

10.1 Reactivity No data available

10.2 Chemical stability Stable under proper conditions.

10.3 Possibility of hazardous reactions May explosively decompose on heating, shock, friction, etc.

10.4 Conditions to avoid Heat, Spark, Open flame, Static discharge, Shock, Friction

10.5 Incompatible materials Oxidizing agents, Strong acids, Bases, Amines, Heavy metals

10.6 Hazardous decomposition products Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	ihl-man TCLo:20 ppm ihl-mus LC50:10 g/m³/2H ihl-rat LC50:400 ppm/6H orl-rat LD50:720 mg/kg
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	mmo-esc 2500 ug/plate (+/-S9) mmo-sat 1 mg/plate (-S9) mmo-sat 25 umol/L (+S9) sce-hmn-lym 7500 umol/L
Carcinogenicity:	ihl-rat TCLo:207 ppm/7H/16W-I orl-rat TDLo:4277 mg/kg/16W-I
IARC =	Group 2B (Possibly carcinogenic to humans)
NTP =	b (Reasonably anticipated to be carcinogens)
Reproductive toxicity:	ipr-rat TDLo:2550 mg/kg (1-15D preg)
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available
RTECS Number:	TZ5250000

SECTION 12: Ecological information

12.1 Toxicity

Fish:	48h LC50:808 mg/L (Oryzias latipes)
Crustacea:	No data available
Algae:	No data available

12.2 Persistence and degradability 14% (2.0 mg/L) , 8% (9.9 mg/L) (by BOD)

12.3 Bioaccumulative potential 0.9 - 1.1 (conc.2 mg/L) , <8.4 (conc.0.2 mg/L)

12.4 Mobility in soil

Log Pow:	0.93
Soil adsorption (Koc):	21
Henry's Law (PaM³/mol):	12.1

12.5 Results of PBT and vPvB assessment

PBT:	Not applicable
vPvB:	Not applicable

12.6 Other adverse effects No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

SECTION 14: Transport information

14.1 UN number 2608

14.2 UN proper shipping name

ADR/RID	Nitropropanes
IMDG/IMO	Nitropropanes
ICAO/IATA	Nitropropanes

14.3 Transport hazard class(es)

ADR/RID	3: Flammable liquid
IMDG/IMO	3: Flammable liquid
ICAO/IATA	3: Flammable liquid

14.4 Packaging group

ADR/RID	III
IMDG/IMO	III
ICAO/IATA	III

14.5 Environmental hazards

Marine pollutant -

14.6 Special precautions for user No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No.1907/2006 Not listed

15.2 Chemical safety assessment A chemical safety assessment has not been carried out.

SECTION 16: Other information

Prepared by: TCI EUROPE N.V.
Issue date: 10/03/2018

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority.
The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

End of Safety Data Sheet