

# Otto Chemie Pvt Ltd

An ISO 9001 : 2015 & GMP Certified Company  
Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,  
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)  
Tel : + 91 98200 41841 Email : [info@ottokemi.com](mailto:info@ottokemi.com) Web : [www.ottokemi.com](http://www.ottokemi.com)

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Product identifiers

Product Name : Nitro methane, 98%  
Product Code : N 1835  
CAS No: 75-52-5

1.2. Relevant identified uses of the substance or mixture and uses advised against  
Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification  
OTTO CHEMIE PVT LTD  
No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,  
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number

Phone no. : + 91 98200 41841 (10 : 00 am – 06 : 00 pm)

### SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flammable liquids, (Category 3) H226: Flammable liquid and vapor.  
Acute toxicity, (Category 4) H302: Harmful if swallowed.  
Acute toxicity, (Category 4) H332: Harmful if inhaled.  
Carcinogenicity, (Category 2) H351: Suspected of causing cancer.  
Reproductive toxicity, (Category 2) H361d: Suspected of damaging the unborn child.

2)

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Warning

Hazard Statements

H226

Flammable liquid and vapor.

H302 + H332

Harmful if swallowed or if inhaled.

H351

Suspected of causing cancer.

H361d

Suspected of damaging the unborn child.

Precautionary Statements

P202

Do not handle until all safety precautions have been read and understood.

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P301 + P312

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P304 + P340 + P312

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
IF exposed or concerned: Get medical advice/ attention.

P308 + P313

Supplemental Hazard Statements

none

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word

Warning

Hazard Statements

H351

Suspected of causing cancer.

H361d

Suspected of damaging the unborn child.

Precautionary Statements

P202

Do not handle until all safety precautions have been read and understood.

P308 + P313

IF exposed or concerned: Get medical advice/ attention.

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Supplemental Hazard Statements none

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Formula : CH<sub>3</sub>NO<sub>2</sub>  
Molecular weight : 61,04 g/mol  
CAS-No. : 75-52-5  
EC-No. : 200-876-6

Component	Classification	Concentration
nitromethane		
CAS-No. 75-52-5 EC-No. 200-876-6	Flam. Liq. 3; Acute Tox. 4; Carc. 2; Repr. 2; H226, H302, H332, H351, H361d	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

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

No data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

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Combustible.  
Avoid shock and friction.  
Explosive decomposition possible on heating.  
Vapors are heavier than air and may spread along floors.  
Forms explosive mixtures with air at elevated temperatures.  
Development of hazardous combustion gases or vapours possible in the event of fire.

## 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## 5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6: Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®).

Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

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

Recommended storage temperature see product label.

Storage class

Storage class (TRGS 510): 4.1A: Other explosive hazardous materials

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Ingredients with workplace control parameters

### 8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

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Splash contact  
Material: Viton®  
Minimum layer thickness: 0,7 mm  
Break through time: 120 min  
Body Protection  
Flame retardant antistatic protective clothing.  
Respiratory protection  
Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.  
These measures have to be properly documented.  
Control of environmental exposure  
Do not let product enter drains. Risk of explosion.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Physical state	liquid
b) Color	colorless
c) Odor characteristic	
d) Melting point/freezing point	Melting point: -28,4 °C
e) Initial boiling point and boiling range	101,2 °C at 1.013,25 hPa
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	Upper explosion limit: 63,0 %(V) Lower explosion limit: 7,3 %(V)
h) Flash point	35 °C - closed cup - ISO 1523
i) Autoignition temperature	418 °C at 1.013,25 hPa
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,65 mPa.s at 20 °C
m) Water solubility	104,5 g/l at 25 °C
n) Partition coefficient: n-octanol/water	log Pow: -0,24 at 21,8 °C - Bioaccumulation is not expected.
o) Vapor pressure	No data available
p) Density 1,127 g/cm <sup>3</sup>	
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

### 9.2 Other safety information

Surface tension 73,6 mN/m at 1g/l at 21 °C

- OECD Test Guideline 115

Relative vapor density  
2,11 - (Air = 1.0)

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

explosible sensitive to shock highly reactive  
Vapor/air-mixtures are explosive at intense warming.

### 10.2 Chemical stability

heat-sensitive

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Exothermic reaction with:

Hydrocarbons

perchlorates

Risk of explosion with:

acids

anilines

strong alkalis

phosphoric acid

Nitric acid

metallic oxides

organic halides

silver salt

aluminium chloride

alkali hydroxides

Ammonia

iodides

Halogenated hydrocarbon

Chloroform

oxyhalogenic compounds

Organic Substances

Oxidizing agents

Acetone

powdered aluminium

formic acid

ammonium hydroxide

Bases

calcium hypochlorite

Sodium hydroxide

lithium aluminium hydride

sodium carbonate

hydrides

nitrous acid

conc. sulfuric acid

Potassium hydroxide

Calcium hydroxide

Morpholine

Bromoform

Hydrazine hydrate

with

Methanol

formaldehyde

with

Air

Amines

with

Heavy metals

with

alkali hydroxides

Formation of explosive salts possible.

### 10.4 Conditions to avoid

Avoid shock and friction.

Heating.

### 10.5 Incompatible materials

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No data available  
10.6 Hazardous decomposition products  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish static test LC50 - Pimephales promelas (fathead minnow) - > 659,2 mg/l - 96 h

(APHA 231)

Toxicity to daphnia

and other aquatic

invertebrates

static test EC50 - Daphnia magna (Water flea) - > 103 mg/l - 48 h

(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 102 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - 310 mg/l - 30 min

(OECD Test Guideline 209)

Remarks: The value is given in analogy to the following substances:

1-nitropropane

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 9,9 % - Not readily biodegradable.

(OECD Test Guideline 301D)

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

Discharge into the environment must be avoided.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

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## SECTION 14: Transport information

14.1 UN number  
ADR/RID: 1261                                      IMDG: 1261                                      IATA: 1261  
14.2 UN proper shipping name  
ADR/RID:                                      NITROMETHANE  
IMDG:    NITROMETHANE  
IATA:    NITROMETHANE  
Passenger Aircraft: Not permitted for transport  
14.3 Transport hazard class(es)  
ADR/RID: 3    IMDG: 3    IATA: 3  
14.4 Packaging group  
ADR/RID: II    IMDG: II    IATA: II  
14.5 Environmental hazards  
ADR/RID: no    IMDG Marine pollutant: no    IATA: no  
14.6 Special precautions for user  
Tunnel restriction code : (E)  
Further information : No data available

## SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Authorisations and/or restrictions on use  
Regulation (EU) 2019/1148 on the marketing and use of explosives precursors  
: nitromethane

National legislation  
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c FLAMMABLE LIQUIDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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