

Safety Data Sheet

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

1.1 Product identifiers

Product name : Nitroethane
Product Number : CK004
Brand : ClassyKem
CAS-No. : 79-24-3

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : ClassyKem
F.F.-1 Ishwar Charan complex,
opp. Lotus school, Satellite,
Ahmedabad, Gujarat 380015.

1.4 Emergency telephone

Emergency Phone # : +91-9327399204

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226 Acute
toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331 Germ
cell mutagenicity (Category 2), H341 Carcinogenicity
(Category 1B), H350
Long-term (chronic) aquatic hazard (Category 3), H412

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word

Danger

Hazard statement(s)

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

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.
P273	Avoid release to the environment.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements

none

Restricted to professional users.

Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard statement(s)

H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P202	Do not handle until all safety precautions have been read and understood.
P304 + P340 + P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

P308 + P313	IF exposed or concerned: Get medical advice/ attention.
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Supplemental Hazard Statements

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : C₂H₅NO₂
Molecular weight : 75.07 g/mol
CAS-No. : 79-24-3

Component	Classification	Concentration
nitroethane		
CAS-No. 79-24-3	Flam. Liq. 3; Acute Tox. 4; Acute Tox. 3; Aquatic Chronic 3; H226, H302, H331, H412	<= 100%
2-nitropropane		
CAS-No. 79-46-9	Flam. Liq. 3; Acute Tox. 4; Acute Tox. 3; Muta. 2; Carc. 1B; Aquatic Chronic 3; H226, H302, H331, H341, H350, H412	>= 1 - < 2.5 %

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

First aiders need to protect themselves. 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 (CO₂) 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_x)

Combustible.

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 carefully with liquid-absorbent material.

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 vapors/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 Storage

conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

hygroscopic

Storage class

Storage class (TRGS 510): 3: Flammable liquids

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

Skin protection

required

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

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 | clear, liquid |
| b) Color | light yellow |
| c) Odor | No data available |
| d) Melting point/freezing point | Melting point/range: -90 °C - lit. 114 - |
| e) Initial boiling point and boiling range | 115 °C - lit. |
| f) Flammability (solid, gas) | No data available |
| g) Upper/lower flammability or explosive limits | Lower explosion limit: 3,4 %(V) |
| h) Flash point | 31 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9 |
| i) Autoignition temperature | 414 °C
at 1.013 hPa |
| j) Decomposition temperature | No data available |
| k) pH | No data available |
| l) Viscosity | Viscosity, kinematic: No data available
Viscosity, dynamic: 0,64 mPa.s at 25 °C |
| m) Water solubility | 48 g/l at 25 °C |
| n) Partition coefficient: n-octanol/water | log Pow: 0,162 at 22,4 °C - Bioaccumulation is not expected. |



CLASSYKEM

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GSTIN: 24CKVPG8675C1ZQ

-
- | | |
|-------------------|----------------------------|
| o) Vapor pressure | 20,8 hPa at 20 °C |
| p) Density | 1,045 g/mL at 25 °C - lit. |

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapor/air-mixtures are explosive at intense warming.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid moisture.

Heating.

10.5 Incompatible materials

Oxidizing agents, Strong reducing agents, Strong acids, Strong bases

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity estimated Oral - 1.071 mg/kg

(Calculation method)

LD50 Oral - Rat - female - 1.083 mg/kg (nitroethane) (OECD Test

Guideline 401)

Symptoms: Nausea, Vomiting, Diarrhea, Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.

Acute toxicity estimate Inhalation - 4 h - 3 mg/l - vapor(Calculation method)

Acute toxicity estimated Inhalation - 11,1 mg/l - vapor (nitroethane)

(Expert judgment)

Symptoms: mucosal irritations, Cough, Shortness of breath Dermal: No data available

Skin corrosion/irritation Skin -

Rabbit (nitroethane) Result: No

skin irritation - 24 h (OECD Test

Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit (nitroethane)

Result: No eye irritation

Remarks: (ECHA)

Respiratory or skin sensitization Sensitisation test:

- Guinea pig (nitroethane) Result: negative

Remarks: (ECHA)

Germ cell mutagenicity Test

Type: Ames test (nitroethane)

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation Method:

OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test (nitroethane)

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method:

OECD Test Guideline 476

Result: negative

(nitroethane)

Test Type: Micronucleus test Species:

Mouse

Cell type: Bone marrow

Application Route: Oral

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child. (nitroethane) Suspected of
damaging fertility. (nitroethane)

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to daphnia
and other aquatic
invertebrates

semi-static test EC50 - Daphnia magna (Water flea) - > 21,9 mg/l - 48 h
(nitroethane)
(OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 17,4
mg/l - 72 h (nitroethane)
(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - activated sludge - 310 mg/l - 0,5 h (nitroethane) (OECD Test Guideline 209)
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: 1- nitropropane

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - Daphnia magna (Water flea) - 2,44 mg/l - 21 d (nitroethane)
(OECD Test Guideline 211)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 5 d (nitroethane)
Result: 23,9 % - Inherently biodegradable. Remarks:
(ECHA)

Ratio BOD/ThBOD < 0,1 % (nitroethane)

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: Transport information**13.1 UN number**

ADR/RID: 2842

IMDG: 2842

IATA: 2842

13.2 UN proper shipping name

ADR/RID: NITROETHANE

IMDG: NITROETHANE

IATA: Nitroethane

13.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

13.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

13.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

13.6 Special precautions for user

Tunnel restriction code : (D/E)

Further information : No data available

SECTION 14: Regulatory information**14.1 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.

14.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out