

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Sodium nitromalonaldehyde monohydrate

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Acute toxicity, Oral (Category 4)

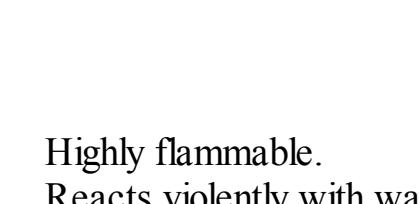
Skin corrosion (Category 1B)

According to European Directive 67/548/EEC as amended.

Highly flammable. Reacts violently with water. In use, may form flammable/explosive vapour-air mixture. May form explosive peroxides. Harmful by inhalation, in contact with skin and if swallowed. Causes burns.

Label elements

Pictogram



Signal word Danger

Hazard statement(s)

H302

Harmful if swallowed.

H312

Harmful in contact with skin.

H314

Causes severe skin burns and eye damage.

H332

Harmful if inhaled.

EUH014

Reacts violently with water.

EUH018

In use may form flammable/explosive vapour-air mixture.

EUH019

May form explosive peroxides.

Precautionary statement(s)

P280

Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P305 + P351 + P338

Immediately call a POISON CENTER or doctor/physician.

P310

Hazard symbol(s)

F

Highly flammable

C

Corrosive

R-phrase(s)

R11

Highly flammable.

R14

Reacts violently with water.

R18

In use, may form flammable/explosive vapour-air mixture.

R19

May form explosive peroxides.

R20/21/22

Harmful by inhalation, in contact with skin and if swallowed.

R34

Causes burns.

S-phrase(s)

S16

Keep away from sources of ignition - No smoking.

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S33

Take precautionary measures against static discharges.

S36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Sodium nitromalondialdehydemonohydrate
Sodium nitromalonic dialdehydemonohydrate
Sodium nitropropanedialmonohydrate
(1-Formyl-1-nitro-2-oxoethyl)sodiummonohydrate
3-Hydroxy-2-nitro-2-propenalsodium saltmonohydrate
3-Hydroxy-2-nitroacroleinsodium saltmonohydrate

Formula

C3H2NNaO4 · H2O

Molecular Weight

157,06 g/mol

CAS-No.

EC-No.

Classification

Concentration

Sodium nitromalonaldehyde monohydrate

34461-00-2

Acute Tox. 4; Skin Corr. 1B;
H302, H312, H314, H332,
EUH014, EUH018, EUH019
F, C, R11 - R14 - R18 - R19 -
R20/21/22 - R34

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

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2) Dry powder

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions

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

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Do not flush with water. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid

Safety data

pH no data available

Melting point 120 - 124 °C

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts violently with water.

Conditions to avoid

Heat, flames and sparks. Exposure to moisture.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Under fire conditions: - Carbon oxides, nitrogen oxides (NOx), Sodium oxides

Aspiration hazard

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

Storage

Consult a physician.

Potential health effects

Inhalation Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion Harmful if swallowed. Causes burns.

Eyes Causes burns. Causes eye damage.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

GERM cell mutagenicity

no data available

Carcinogenicity

no data available

IARC:

No component of this product present in levels greater than or equal to 0.1% is identified as a carcinogen by IARC.

WHO:

No component of this product present in levels greater than or equal to 0.1% is identified as a carcinogen by WHO.

EU:

No component of this product present in levels greater than or equal to 0.1% is identified as a carcinogen by EU.

Other:

No component of this product present in levels greater than or equal to 0.1% is identified as a carcinogen by other.

12. ECOLOGICAL INFORMATION