

Material Safety Data Sheet
according to Regulation (EC) No. 1907/2006

2-NITROTHIOPHENE

Revision date 19.02.2021
Version 10
Replaces version from 07.05.2020

1. Identification of the substance/Mixture and of the company/undertaking

1.1 Product identifier

Product name 2-Nitrothiophene
CAS-No. 609-40-5
EC-No. 210-190-9
Reach-No. 01-2120830163-66-0000

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

Identified uses Additive or intermediate for the chemical industry.

1.3 Details of the supplier of the safety data sheet

Name Valsynthese SA
Factory address Valsynthese SA
Fabrikstrasse 48
PO Box 636
3900 Brig / Switzerland
Office address Valsynthese SA
Société Suisse des Explosifs Group
PO Box 636
3900 Brig / Switzerland

Information Department This number is available only during office hours.
Phone +41 27 922 71 11
E-Mail (Responsible person):
msds@explosif.ch

1.4 Emergency Phone Number +41 27 922 71 11 (only during office hours) or
Toxicological Information Centre in Switzerland: Tel. 145
or +41 (0) 44 251 51 51

2. Hazards Identification

* 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity, Oral (Category 4), H302
Acute toxicity, Dermal (Category 4), H312
Acute toxicity, Inhalation (Category 4), H332
Germ cell mutagenicity (Category 2), H341

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

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

| | |
|------|---------------------------------------|
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H332 | Harmful if inhaled. |
| H341 | Suspected of causing genetic defects. |

Precautionary statement(s)

| | |
|----------------|---|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P353+P312 | IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P304+P340+P312 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. |

2.3 Other hazards

No data available

3. Composition / Information on ingredients

3.1 Substance

| | |
|-------------------|---|
| Product name | 2-nitrothiophene |
| Molecular formula | C ₄ H ₃ NO ₂ S |
| Molecular weight | 129.14 g/mol |
| Cas-No. | 609-40-5 |
| EC-No. | 210-190-9 |

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | Classification | Concentration |
|--------------------------------------|--|---------------|
| CAS-No. 609-40-5 EC-No. 210-190-9 | Acute Tox. 4; Muta. 2; H302; H312; H332; H341 | < =100% |

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

4. First-aid measures

4.1 Description of first aid measures

| | |
|-------------------------|---|
| General advice | Consult a physician. Show this safety data sheet to the doctor in attendance. |
| If swallowed | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| If inhaled | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | 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. |

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

5. Firefighting measures

5.1 Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
|------------------------------|--|

5.2 Special hazards arising from the substance or mixture

During fire, irritating and highly toxic gases (CO, CO₂, NO_x, SO_x) may be generated by thermal decomposition or combustion.

5.3 Advice for fire fighters

Wear full protective clothing and self-contained breathing apparatus.

5.4 Additional information

No data available

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

Use appropriate personal protective equipment. Avoid dust formation.

6.2 Environmental precautions

Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3 Methods and material for containment and cleaning up

Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations..

6.4 Reference to other sections

For further and detailed information see section 8 and 13.

6.5 Additional Information

No data available

7. Handling and storage

7.1 Precautions for safe handling

Observe conventional hygiene precautions. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.

Technical measures: ensure adequate ventilation.



7.2 Conditions for safe storage, including any incompatibilities

Keep in original, closed and labelled container. The place of storage has to be properly ventilated and clean. Store in cool and dry place. Keep packaging closed when not in use. Store in dark room, light sensitive. Follow all instructions on the label.

Incompatible materials: strong oxidizing agents.

Light-sensitive, Air-sensitive.

7.3 Specific end use(s)

No data available

8. Exposure controls / Personal protection

8.1 Control parameters

No data available

8.2 Exposure controls

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

Appropriate engineering controls

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Mechanical exhaust required. Safety shower and eye bath should be available. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep containers closed.

Personal protective equipment

Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Full contact/ Splash contact
Material: Nitrile-rubber
Minimum layer thickness: 0,2 mm
Break through time: 480 min
Material tested: Dermatril P (KCL 743)
data source: KCL GmbH, D-36124 Eichenzell,
test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374 contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.



| | |
|---------------------------------|---|
| Body Protection | The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Respiratory protection | Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Environmental exposure controls | Do not let product enter drains. |

8.3 Additional information

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--|
| Appearance | Light yellow-brown, crystalline powder |
| Odour | No specific odour |
| Odour threshold | No data available |
| pH value | No data available |
| Melting point/freezing point | 43-45°C/-; 760 mbar |
| Initial boiling point and boiling range | 224-225°C |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper/lower flammability or explosive limits | No data available |
| Vapour pressure | No data available |
| Relative density | No data available |
| Water solubility | No data available |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |



9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable at normal temperature and general conditions of work.

10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

Light, may discolour on exposure of light.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

CO₂, CO and NO_x, SO_x, irritating and toxic fumes and gases in case of fire.

11. Toxicological information

11.1 Information on toxicological effects

| | |
|-----------------------------------|-------------------|
| Acute toxicity | No data available |
| Skin corrosion/irritation | No data available |
| Serious eye damage/eye irritation | No data available |
| Eye damage/irritation | No data available |
| Respiratory or skin sensitisation | No data available |
| Germ cell mutagenicity | No data available |
| Carcinogenicity | No data available |
| Reproductive toxicity | No data available |
| STOT-single exposure | No data available |
| STOT-repeated exposure | No data available |
| Aspiration hazard | No data available |

Additional information

No data available



12. Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulation potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Product

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. During the disposal of the product, its residue and its packaging the national and local prescriptions should be observed.

Contaminated packaging

According to the consideration regarding the product. Disposal must be made according to the local regulations.

14. Transport information

14.1 UN Number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -



14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no data
available

IMDG Marine pollutant: no
data available

IATA: no data
available

14.6 Special precautions for user

No data available

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

No data available

15. Regulatory information

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

EU legislation

authorisations

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

15.3 Additional information

No data available



16. Other information

* 16.1 Information regarding the revision of the safety data sheet

* Data compared to the previous version altered.

16.2 Full text of H-Statements referred to under sections 2 and 3

| | |
|------------|---------------------------------------|
| Acute Tox, | Acute toxicity |
| Muta. | Germ cell mutagenicity |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H332 | Harmful if inhaled. |
| H341 | Suspected of causing genetic defects. |

16.3 Additional information

The information contained herein is in conformity with EU Directive EC 1907/2006 and EC 1272/2008, and is believed to be accurate and represents the best information currently available to us on the date of publication. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Valsynthese SA be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Valsynthese SA has been advised of the possibility of such damages.

