

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 10 Feb 2023

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

1.1. Product name:

Pyridine

1.1. Catalog No.:

687361

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquids (Category 2), H225
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Acute toxicity, Dermal (Category 4), H312
Skin irritation (Category 2), H315
Eye irritation (Category 2), H319

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

H315 Causes skin Irritation H319 Causes serious eye irritation.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/ protective clothing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : C₅H₅N

Molecular weight : 79,10 g/mol

CAS-No. : 110-86-1

EC-No. : 203-809-9

Index-No. : 613-002-00-7

Registration number : 01-2119493105-40-XXXX

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

Component Classification Concentration

Pyridine

CAS-No.

EC-No.

Index-No.

Registration number

110-86-1

203-809-9

613-002-00-7

01-2119493105-40-XXXX

Flam. Liq. 2; Acute Tox. 4;

Skin Irrit. 2; Eye Irrit. 2; H225,

H302, H332, H312, H315,

H319

<= 100 %

3.1.1. Formula

C₅H₅N

3.1.2. Molecular Weight (g/mol)

79.10

3.1.3. CAS-No.

110-86-1

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 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.

If swallowed

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

5. FIRE-FIGHTING 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

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

Colour: colourless

b) Odour unpleasant

c) Odour Threshold No data available

d) pH 8,5 at 15,82 g/l at 25 °C

e) Melting point/freezing point

Melting point/range: -42 °C f) Initial boiling point and boiling range

115 °C

g) Flash point 17,0 °C - closed cup

h) Evaporation rate No data available

i) Flammability (solid, gas) No data available

j) Upper/lower flammability or explosive limits

Upper explosion limit: 12,4 %(V)
Lower explosion limit: 1,8 %(V)
k) Vapour pressure 13,3 hPa at 13,2 °C
26,7 hPa at 25,0 °C
l) Vapour density No data available
m) Relative density 0,978 g/mL at 25 °C
n) Water solubility soluble
o) Partition coefficient: noctanol/
water
log Pow: 0,65
p) Auto-ignition
temperature
482,0 °C
q) Decomposition
temperature
No data available
r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available
9.2 Other safety information
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
Heat, flames and sparks.
10.5 Incompatible materials
Strong oxidizing agents, Strong acids
10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)
Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - Rat - 1.500 mg/kg
Remarks: (ECHA) LC50 Inhalation - Rat - male - 4 h - 17,1 mg/l
(US-EPA)
LD50 Dermal - Rabbit - > 1.000 - 2.000 mg/kg
(OECD Test Guideline 402)
Skin corrosion/irritation
Serious eye damage/eye irritation
Respiratory or skin sensitisation
Sensitisation test: - Guinea pig
Result: negative
Remarks: (Lit.)
Germ cell mutagenicity
Ames test
Salmonella typhimurium
Result: negative
In vitro mammalian cell gene mutation test
Chinese hamster lung cells

Result: negative

OECD Test Guideline 475

Mouse - male - Bone marrow

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Specific target organ toxicity - single exposure

Acute oral toxicity - Vomiting, Nausea

Acute inhalation toxicity - mucosal irritations, Cough, Shortness of breath

Specific target organ toxicity - repeated exposure

Aspiration hazard

Additional Information

RTECS: Not available To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting,

Dizziness, tachycardia, nervousness, insomnia, Skin disorders, loss of appetite

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:

After uptake:

Headache, restlessness, insomnia

In high doses:

narcosis, cardiovascular disorders, Circulatory collapse

Chronic uptake results in damage of:

Liver, Kidney

Good warning effect due to low odour threshold.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 99 mg/l - 96 h

Remarks: (ECHA)

Toxicity to daphnia and

other aquatic

invertebrates

EC5 - E.sulcatum - 3,5 mg/l - 72 h

Remarks: (Lit.)(maximum permissible toxic concentration)

Toxicity to algae IC5 - Scenedesmus quadricauda (Green algae) - 120 mg/l - 7 d

Remarks: (maximum permissible toxic concentration)(Lit.)

Toxicity to bacteria EC5 - Pseudomonas putida - 340 mg/l - 16 h

Remarks: (Lit.)(maximum permissible toxic concentration)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 97 % - Readily biodegradable.

(OECD Test Guideline 301B)

12.3 Bioaccumulative potential

12.4 Mobility in soil

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 Other adverse effects

Harmful to aquatic life.

Forms toxic mixtures in water, dilution measures notwithstanding.

Discharge into the environment must be avoided

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1282 IMDG: 1282 IATA: 1282

14.2 UN proper shipping name

ADR/RID: PYRIDINE

IMDG: PYRIDINE

IATA: Pyridine

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

No data available

15. REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Water contaminating class (Germany):

WGK 2, water endangering - ID-Number 179 - VwVwS

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!