SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name: p-Toluenesulfonyl hydrazide

CAS-No.: 1576-35-8

Company Identification: Xihu Industrial Park, Sandun Town, Hangzhou 310030, China

For information, call: 0086-571-86217390

Emergency Number: 0086-18268058086

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Self-reactive substances and mixtures (Type D), H242

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Specific target organ toxicity - repeated exposure (Category 2), Kidney, H373

Long-term (chronic) aquatic hazard (Category 2), H411

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Hazard statement(s)

- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H341 Suspected of causing genetic defects.
- H373 May cause damage to organs (Kidney) through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P235 Keep cool.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P403 Store in a well-ventilated place.

Supplemental Hazard information (EU)

EUH044 Risk of explosion if heated under confinement.

Reduced Labeling (<= 125 ml)

Pictogram



Signal word Danger

Hazard statement(s)

- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.

Precautionary statement(s)

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Supplemental Hazard information (EU)

EUH044 Risk of explosion if heated under confinement.

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.MPOSITION/INFORMATION ON INGREDIENTS

Substances

Synonyms: p-Toluenesulfonhydrazide

p-Toluenesulfonic acid hydrazide

Tosylhydrazide

p-Toluenesulfonyl hydrazide

Formula: C7H10N2O2S

Molecular Weight: 186,23 g/mol

CAS	Chemical Name	%	EINECS	Classification
1576-35-8	toluene-4-sulphonic	98%	216-407-3	Self-react. D; Acute Tox. 4; Skin
	acid hydrazide			Irrit. 2; Eye Irrit.2; Skin Sens. 1;
				Muta. 2; STOT RE 2; Aquatic
				Chronic 2; H242, H302,H315, H319,
				H317, H341,H373, H411

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Water Foam

Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

Combustible.

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.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8..

6.2 Environmental precautions

Do not let product enter drains.

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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

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

Tightly closed. Separately or together with other organic peroxides only and away from sources of ignition and heat.

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

8.1 Control parameters

Components with workplace 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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: > 480 min

Material tested: KCL 741 Dermatril® L

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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,

Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: > 480 min

Material tested: KCL 741 Dermatril® L

Body Protection

protective clothing

Respiratory protection

required when dusts 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 P3

The entrepeneur 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance powder

Colour white

Odour No data available

PH No data available

Melting point/freezing point 103 - 108 °C - lit.

Initial boiling point and boiling range > 150°C at 1.013 hPa - OECD Test Guideline 103

Flash point No data available

Flammability (solid, gas) No data available

Upper/lower flammability or explosive limits No data available

Vapour pressure No data available

Vapour density No data available

Relative density No data available

Water solubility ca.7,9 g/l at 20 °C - OECD Test Guideline 105

Partition coefficient: noctanol/water No data available

Autoignition temperature No data available

Decomposition temperature Type D

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive properties Risk of explosion if heated under confinement.

Oxidizing properties No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Risk of explosion if heated under confinement.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Oxidizing agents

bases

metallic salts

acids

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 1.000 - 2.000 mg/kg

(OECD Test Guideline 401)

Remarks: (in analogy to similar products)

LC50 Inhalation - Rat - male and female - 4 h - > 5 mg/l

(OECD Test Guideline 436)

Remarks: (in analogy to similar products)

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Suspected of causing genetic defects.

Ames test

S. typhimurium

(in analogy to similar products)

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

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure. - Kidney

Aspiration hazard

No data available

Additional Information

RTECS: MW0210000

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

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 semi-static test LC50 - Oryzias latipes - 74 mg/l - 96 h

(OECD Test Guideline 203)

Remarks: (in analogy to similar products)

Toxicity to daphnia semi-static test EC50 - Daphnia magna (Water flea) - 2,9 mg/l - 48h

and other aquatic (OECD Test Guideline 202)

Invertebrates Remarks: (in analogy to similar products)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 3 mg/l - 72 h

(OECD Test Guideline 201)

Remarks: (in analogy to similar products)

Toxicity to bacteria static test EC50 - activated sludge - 641 mg/l - 180 h

(OECD Test Guideline 209)

Remarks: (in analogy to similar products)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 20 d

Result: 0 % - Not readily biodegradable.

(OECD Test Guideline 301F)

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 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3226 IMDG:3226 IATA: 3226

14.2 UN proper shipping name

ADR/RID: SELF-REACTIVE SOLID TYPE D (4-METHYLBENZENESULPHONYLHYDRAZIDE)

IMDG: SELF-REACTIVE SOLID TYPE D (4-METHYLBENZENESULPHONYLHYDRAZIDE)

IATA: Self-reactive solid type D (4-Methylbenzenesulphonylhydrazide)

Special Provisions: "Keep away from heat" label required.

14.3 Transport hazard class(es)

ADR/RID: 4.1 IMDG:4.1 IATA: 4.1

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

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 material safety data sheet complies with the requirements of Regulation (EC) No.

1907/2006.

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.

P6b SELF-REACTIVE

SUBSTANCES AND

MIXTURES and

ORGANIC PEROXIDES

E2 ENVIRONMENTAL

HAZARDS

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.

16. OTHER INFORMATION

MSDS Creation Date:05/12/2019

Revision #0 Date: Original

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

EUH044 Risk of explosion if heated under confinement.

H242 Heating may cause a fire.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Relevant changes since previous version

2. Hazards identification

Further information

The information above is believed to be accurate and represents the best information currently available



to us. However, we make no warranty of merchantibility 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 the company 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 the company has been advised of the possibility of such damages.