

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

MSDS Name: (R)- Styrene oxide
Synonyms: (R)-PHENYLETHYLENE OXIDE;(R)-(+)-PHENYLOXIRANE
Company Identification: PI Chemicals Ltd.
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Section 2 - Product Information

Catalog Number: PI-10838
CAS Number: 20780-53-4
MDL Number: MFCD00066210
EC Number: 202-476-7
Purity: 98%

Section 3 - Physical and Chemical Properties

Physical state: Liquid
Color: Pale yellow to off-white
Odor: Not available
Molecular Formula: C₈H₈O
Molecular Weight: 120.15
Freezing/Melting Point: Not available
Boiling Point: 89-90 °C/23 mmHg(lit.)
Flash Point: 80 °C / 176 °F
Autoignition Temperature: Not available
Refractive Index (n_D20): Not available
Density: 1.051 g/mL at 25 °C(lit.)
Decomposition Temperature: Not available
Solubility: Soluble in water

Section 4 - Hazards Identification

Eye: Causes eye irritation.

Skin: Causes skin irritation. Harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. Toxic if swallowed.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Section 5 - First Aid Measures

Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Section 6 - Stability and Reactivity

Chemical Stability: Stable under recommended temperatures and pressures.
Materials to avoid: Strong oxidizing agents, Strong acids.
Conditions to Avoid: Incompatible materials.
Hazardous Decomposition Products: Carbon oxides.
Hazardous Polymerization: Has not been reported.

Section 7 - Handling and Storage

Handling: Avoid all direct contact with material. Wash thoroughly after handling. Have safety shower and eye wash available. Do not get in eyes, on skin, on clothing.
Storage: 2-8 °C. Keep container tightly closed in a dry and well-ventilated place.

Section 8 - Personal Protection

Eyes: Wear appropriate protective eyeglasses.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Fire and Explosion Hazard Data

General Information: As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.
Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 10 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 11 - Toxicological Information

RTECS#: CAS# 20780-53-4: CZ9625010.

LD50/LC50: RTECS: CZ9625010.

Carcinogenicity: (R)- Styrene oxide
–Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Section 12 - Environmental information

Not available

Section 13 - Disposal Consideration

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

Section 14 - Transport Information

IATA: UN 2810, Hazard Class 6.1, PG III.

IMO: UN 2810, Hazard Class 6.1, PG III.

RID/ADR: UN 2810, Hazard Class 6.1, PG III.

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Indication of Danger: Toxic

Risk Phrases:

R 45: May cause cancer.

R 21: Harmful in contact with skin.

R 36: Irritating to the eyes.

Safety Phrases:

S 53: Avoid exposure - obtain special instruction before use.

S 45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

WGK (Water Danger/Protection)

CAS#20780-53-4: 3.

Canada

CAS# 20780-53-4: Not available.

US Federal

TSCA

CAS# 20780-53-4 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Additional Information

MSDS Creation Date: July 17, 2009

Update: June 9, 2010

The above information is believed to be accurate and represents the best knowledge available to us currently. 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 way shall PI Chemicals, 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, even if PI Chemicals has been advised of the possibility of such damages.