

SAFETY DATA SHEET

According to OSHA 29 CFR 1910.1200



Hoffman Fine Chemicals

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

CAS number: 19300-54-0
Product name: 4-Penten-1-yl tosylate

Catalog number: HFC3106
Brand: Hoffman Fine Chemicals

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

Identified uses: For laboratory research purposes. Not for drug, household nor animal use.

1.3 Details of the supplier of the safety data sheet

Company: Hoffman Fine Chemicals Pty Ltd
Address: 4 46-50 Buchanan Road, Brooklyn, Victoria, 3012, Australia

Telephone: 03 9315 3435
Fax:

1.4 Emergency telephone number

Emergency telephone number: 800-424-9300 CHEMTREC USA 1-703-527-3887 CHEMTREC International 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910(OSHA HCS)

Acute toxicity, oral Category 3, H301

Acute toxicity, dermal Category 3, H311

Acute toxicity, inhalation Category 3, H331

Germ cell mutagenicity Category 2, H341

For the Full text of H-Statement mentioned in this Section: see SECTION 16.

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2.2 GHS Label elements, including precautionary statement

Hazard pictograms



Signal word

Danger

Hazard statements

| | |
|------|--------------------------------------|
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H331 | Toxic if inhaled |
| H341 | Suspected of causing genetic defects |

Precautionary statements

| | |
|-----------|--|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P264 | Wash hands thoroughly after handling. Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection |
| P302 P352 | IF ON SKIN: wash with plenty of soap and water. |
| P304 P340 | IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing. |
| P308 P313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P330 | Rinse mouth. |
| P361 | Remove/Take off immediately all contaminated clothing. |
| P403 P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international |

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Supplemental Hazard information

None.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Product name: 4-Penten-1-yl tosylate

CAS number: 19300-54-0

Formula: C₁₂H₁₆O₃S

Molecular weight: 240.3186

Concentration: ≤100 Percent

3.2 Mixtures

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Consult a physician. Show this material safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

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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. Continue rinsing eyes during transport to hospital.

If swallowed

Provided the patient is conscious, wash out mouth with water. Vomiting should only be induced under the direction of a physician or a poison control centre.

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Sand, carbon dioxide, dry chemical powder, or appropriate foam.

Unsuitable extinguishing media

5.2 Special hazards arising from the substance or mixture

May emit toxic fumes under fire conditions including .

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5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Wear a self-contained breathing apparatus in pressure-demand and full protective gear.

Use dry powder, carbon dioxide, or chemical foam. Use proper personal protective equipment.

5.4 Further information

No data available.

SECTION 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.

6.2 Environmental protections

Prevent further leakage or spillage if safe to do so. Do not let product enter drains or river. Alert the neighbourhood to the presence of fumes or gas.

6.3 Methods and material for containment and cleaning up

Wipe dry, place a rag in a bag and hold for waste disposal. Avoid fumes inhaling. Ventilate area and wash spill site after material pickup is complete.

6.4 Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- a) Handle in accordance with good industrial hygiene and safety practice
- b) Take measures to prevent the build-up of electrostatic charge.

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- c) Provide appropriate exhaust ventilation at places where dust is formed.
- d) Avoid inhalation of vapor or mist.
- e) Not to eat, drink, smoke in work areas.
- f) To wash hands after use.
- g) To remove contaminated clothing and protective equipment before entering eating areas.

For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated area

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep container tightly closed and upright. Avoid overheating. Store in a dry and well-ventilated place at .

7.3 Specific end use(s)

Apart from the uses mentioned in Section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

No data available.

8.2 Exposure controls

Appropriate engineering controls

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

- a) Handle in accordance with good industrial hygiene and safety practice.
- b) Wash hands before breaks and at the end of workday.
- c) Suitable eye/body wash equipment should be available in the vicinity of any potential exposure.
- d) Ensure adequate ventilation, especially in confined areas.

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- e) Use explosion-proof electrical appliances, ventilation, lighting and other equipment.
- f) Set up emergency evacuation routes and necessary evacuation zones.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--------------------------------------|-------------------|
| Appearance: | No data available |
| Odor: | No data available |
| Odor threshold: | No data available |
| pH: | No data available |
| Melting point/freezing point: | No data available |
| Initial boiling point/boiling range: | No data available |

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| | |
|--|-------------------|
| Flash point: | No data available |
| Evaporation rate: | No data available |
| Flammability (solid, gas): | No data available |
| Upper explosive limits: | No data available |
| Lower explosive limits: | No data available |
| Vapor pressure: | No data available |
| Vapor density: | No data available |
| Relative density: | No data available |
| Water solubility: | No data available |
| Partition coefficient: n-octanol/water | 2.952 |
| 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.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under specified storage temperature.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

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10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

No data available

SECTION 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 |
| Respiratory or skin sensitization: | No data available |
| Germ cell mutagenicity: | No data available |
| Carcinogenicity: | No data available |
| Reproductive toxicity: | No data available |
| Specific Target Organ Toxicity (Single Exposure): | No data available |
| Specific Target Organ Toxicity (Repeated Exposure): | No data available |
| Aspiration hazard: | No data available |
| Chronic Symptoms: | No data available |

11.2 Additional information

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

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

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12.3 Bioaccumulative 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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- a) Dispose of contents/container in accordance with local, regional, national, and international regulations.
- b) Avoid release to the environment.
- c) Contaminated packaging dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number:

Class:

Packing group:

Proper shipping name:

Classed non-hazardous for shipping.

Reportable quantity (RQ):

Poison inhalation hazard:

IMDG

UN number:

Class:

EMS-No:

Classed non-hazardous for shipping.

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Proper shipping name:

IATA

UN number:

Class:

Classed non-hazardous for shipping.

Proper shipping name:

SECTION 15: Regulatory information

15.1 U.S. Federal regulations

OSHA 29 CFR 1910.1200:

Toxic Substances Control Act (TSCA):

Comprehensive Response Compensation and Liability Act (CERCLA):

Superfund Amendments and Reauthorization Act (SARA Title III):

SARA 313 Reportable Ingredients:

California Proposition 65:

Safety Assessment:

No Chemical Safety Assessment

SECTION 16: Other information

16.1 Full text of H-Statements referred to under Sections 2

H301

Toxic if swallowed

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| | |
|------|--------------------------------------|
| H311 | Toxic in contact with skin |
| H331 | Toxic if inhaled |
| H341 | Suspected of causing genetic defects |

16.2 Further information

The reference company name of written contents:

Company: Hoffman Fine Chemicals Pty Ltd

Address: 4 46-50 Buchanan Road, Brooklyn, Victoria, 3012, Australia

Email: infoathoffmanchemicals.com

Telephone: 03 9315 3435

Fax:

The above information is provided without any warranty, express or implied, regarding its correctness and does not purport to be all inclusive and shall be used only as a guide. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. This Safety Data Sheet ('SDS') was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable

The conditions or methods of handling, storage, contact, use or disposal of the product are beyond our control and may be beyond our knowledge. 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. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of having unknown hazards and toxicity, which differ greatly depending on the conditions and/or duration of handling, storage, contact, use and/or disposal. The products must be handled only by those who are familiar with specialized knowledge and have experience and/or under the guidance of those specialists throughout handling, storage, contact, use and disposal. Safe usage conditions shall be set up on each user's own responsibility. New information or amendments may be made to this SDS.

For the abovementioned reasons and others, the Company listed in Section 16.2 of this SDS and its affiliates do not assume responsibility and expressly disclaim any liability for loss, damage and/or expense arising out of or in any way connected with the handling, storage, contact, use and/or disposal of this product.

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