

# Safety Data Sheets

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0  
Creation Date: Aug 11, 2017  
Revision Date: Aug 11, 2017

## 1. Identification

### 1.1 GHS Product identifier

Product name N-tosyl-L-phenylalanyl chloromethyl ketone

### 1.2 Other means of identification

Product number -  
Other names N-p-Tosyl-L-phenylalanine chloromethyl ketone (TPCK)

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses For industry use only.  
Uses advised against no data available

### 1.4 Supplier's details

Company Echemi.com  
Address Echemi.com  
Telephone Echemi.com  
Fax Echemi.com

### 1.5 Emergency phone number

Emergency phone number Echemi.com  
Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## 2. Hazard identification

### 2.1 Classification of the substance or mixture

Skin irritation, Category 2  
Serious eye damage, Category 1  
Specific target organ toxicity – single exposure, Category 3

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word Danger  
Hazard statement(s) H315 Causes skin irritation  
H318 Causes serious eye damage  
H335 May cause respiratory irritation

Precautionary statement(s)  
Prevention P264 Wash ... thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.

Response P302+P352 IF ON SKIN: Wash with plenty of water/...  
P321 Specific treatment (see ... on this label).  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor/...  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER/doctor/...if you feel unwell.  
Storage P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
Disposal P501 Dispose of contents/container to ...

### 2.3 Other hazards which do not result in classification

none

## 3. Composition/information on ingredients

### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
N-tosyl-L-phenylalanyl chloromethyl ketone	N-tosyl-L-phenylalanyl chloromethyl ketone	402-71-1	none	100%

## 4. First-aid measures

### 4.1 Description of necessary 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

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.		
<b>4.2 Most important symptoms/effects, acute and delayed</b>		
no data available		
<b>4.3 Indication of immediate medical attention and special treatment needed, if necessary</b>		
no data available		
<b>5.Fire-fighting measures</b>		
<b>5.1 Extinguishing media</b>		
<b>Suitable extinguishing media</b>		
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.		
<b>5.2 Specific hazards arising from the chemical</b>		
no data available		
<b>5.3 Special protective actions for fire-fighters</b>		
Wear self-contained breathing apparatus for firefighting if necessary.		
<b>6.Accidental release measures</b>		
<b>6.1 Personal precautions, protective equipment and emergency procedures</b>		
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.		
<b>6.2 Environmental precautions</b>		
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.		
<b>6.3 Methods and materials for containment and cleaning up</b>		
Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.		
<b>7.Handling and storage</b>		
<b>7.1 Precautions for safe handling</b>		
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.		
<b>7.2 Conditions for safe storage, including any incompatibilities</b>		
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.		
<b>8.Exposure controls/personal protection</b>		
<b>8.1 Control parameters</b>		
<b>Occupational Exposure limit values</b>		
no data available		
<b>Biological limit values</b>		
no data available		
<b>8.2 Appropriate engineering controls</b>		
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.		
<b>8.3 Individual protection measures, such as personal protective equipment (PPE)</b>		
<b>Eye/face protection</b>		
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).		
<b>Skin protection</b>		
Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.		
<b>Respiratory protection</b>		
Wear dust mask when handling large quantities.		
<b>Thermal hazards</b>		
no data available		
<b>9.Physical and chemical properties</b>		
<b>Physical state</b>		
powder		
<b>Colour</b>		
no data available		
<b>Odour</b>		
no data available		
<b>Melting point/ freezing point</b>		
273°C(lit.)		
<b>Boiling point or initial boiling point and boiling range</b>		
76°C		
<b>Flammability</b>		
no data available		
<b>Lower and upper explosion limit / flammability limit</b>		
no data available		
<b>Flash point</b>		
-7°C(lit.)		
<b>Auto-ignition temperature</b>		
no data available		
<b>Decomposition temperature</b>		
no data available		
<b>pH</b>		
no data available		
<b>Kinematic viscosity</b>		
no data available		
<b>Solubility</b>		
>52.8 [ug/mL]		
<b>Partition coefficient n-octanol/water (log value)</b>		
no data available		
<b>Vapour pressure</b>		
1.63E-10mmHg at 25°C		
<b>Density and/or relative density</b>		
1.277 g/cm3		
<b>Relative vapour density</b>		
no data available		
<b>Particle characteristics</b>		
no data available		
<b>10.Stability and reactivity</b>		

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

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

11.Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/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

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12.Ecological information

12.1 Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

13.Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14.Transport information

14.1 UN Number

ADR/RID: UN3335

IMDG: UN3335

IATA: UN3335

14.2 UN Proper Shipping Name

ADR/RID: AVIATION REGULATED SOLID, N.O.S.  
IMDG: AVIATION REGULATED SOLID, N.O.S.  
IATA: AVIATION REGULATED SOLID, N.O.S.

#### 14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

#### 14.4 Packing group, if applicable

ADR/RID: II

IMDG: II

IATA: II

#### 14.5 Environmental hazards

ADR/RID: no

IMDG: no

IATA: no

#### 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 specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
N-tosyl-L-phenylalanyl chloromethyl ketone	N-tosyl-L-phenylalanyl chloromethyl ketone	402-71-1	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Not Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Not Listed.

### 16. Other information

#### Information on revision

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#### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

#### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

*Disclaimer: 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. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.*