

# Safety Data Sheet

According to Regulation (EU) No. 1907/2006 (REACH), Annex II

Version: 1.3/EN  
Product name: HARTTIVE MSI

Revision date: 05/01/2022  
Printing date: 05/01/2022

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name: HARTTIVE MSI  
Substance name: 4-Isocyanatosulphonyltoluene; Tosyl isocyanate; p-Toluenesulphonyl isocyanate  
Chemical family: Isocyanate  
REACH Reg. No.: 01-2119980050-47-0004  
Index No.: 615-012-00-7  
CAS No.: 4083-64-1  
EC No.: 223-810-8

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

Identified uses: Water absorber.  
Uses advised against: No information available.

### 1.3 Details of the supplier of the SDS

Company name: SHANDONG JOHNSON FINE CHEMICAL CO., LTD.  
Address: NO.06933 Huanghexi Street Binhai  
Economic-Technological Development Area  
Weifang City, Shandong, China  
E-mail: jfchem@johnson-fine.com  
Telephone: +86-536-5319217  
Fax: +86-536-5319677

### 1.4 Emergency telephone number

In China: +86-536-5307299

## Section 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008[CLP]

Serious eye damage/eye irritation, Category 2; H319  
Specific Target Organ Toxicity (Single Exposure), Category 3; H335  
Skin Corrosion/Irritation, Category 2; H315  
Respiratory sensitisation, Category 1; H334

#### Classification according to Directive 67/548/EEC [DSD]

R14 - Xi; R36/37/38 - R42

#### Additional information

Full text of R-phrase(s) and H-statement(s): see section 16.

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## 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Substance name: 4-Isocyanatosulphonyltoluene

Hazard pictogram(s):



Signal word: Danger

Hazard statements: H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
H315: Causes skin irritation.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

Prevention: P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P271: Use only outdoors or in a well-ventilated area.

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

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

P304 + P341 + P342 + P311: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

Supplemental Hazard information (EUH):

EUH014: Reacts violently with water.

Special rules for supplemental label elements for certain mixtures:

No information available.

## 2.3 Other hazards

No information available.

## Section 3: Composition/information on ingredients

### 3.1 Substance information

Substance name: 4-Isocyanatosulphonyltoluene;

REACH registration No.: 01-2119980050-47-0004

Index No.: 615-012-00-7

CAS No.: 4083-64-1

EC No.: 223-810-8

Synonyms: Tosyl isocyanate; p-Toluenesulphonyl isocyanate

Purity: 100% by weight

Molecular formula: C<sub>8</sub>H<sub>7</sub>NO<sub>3</sub>S

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## Section 4: First aid measures

### 4.1 Description of first aid measures

**General notes:** In all cases of doubt, or when symptoms persist, seek medical attention.

**Following inhalation:**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**Following skin contact:**

Wipe off mechanically and wash afflicted areas thoroughly with soap and plenty of water.

**Following eye contact:**

Rinse carefully and thoroughly with water and seek medical advice.

**Following ingestion:**

Never give anything through mouth to an unconscious person. Get medical attention.

**Notes for the doctor:**

Treat symptomatically and supportively.

### 4.2 Most important symptoms and effects, both acute and delayed

Ingestion may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation may cause respiratory tract irritation. Can produce delayed pulmonary edema. May cause respiratory sensitization.

Skin contact may cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Contact with skin causes irritation and possible burns, especially if the skin is wet or moist.

Eyes contact may cause eye irritation. Lachrymator. When substances become wet or come in contact with moisture of the mucous membranes, it becomes an irritant. May cause chemical conjunctivitis

### 4.3 Indication of the immediate medical attention and special treatment needed

No information available.

## Section 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Extinguishing power or CO<sub>2</sub>.

**Unsuitable extinguishing media:** Water (Reacts violently with water).

### 5.2 Special hazards arising from the substance or mixture

Combustion gases contain carbon monoxide, carbon dioxide, nitrogen oxides and hydrogen cyanide.

### 5.3 Advice for fire-fighters

Wear appropriate protective clothing with self-contained breathing apparatus. Avoid breathing smoke and vapor. Move containers away from fire areas if it can be done without risk.

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## Section 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Prevention of skin and eye contact. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Don't close to the drains.

### 6.3 Methods and material for containment and cleaning up

Small quantities let it react with atmospheric humidity. Larger quantities cover with damp sand. After approx. one hour transfer to waste container and do not seal (evolution of CO<sub>2</sub>). Keep damp in a safe ventilated area for several days. Storage on approved landfill or special refused dump, or by incineration.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Avoid breathing dust. Ensure adequate ventilation or exhaust ventilation in the working area. Do not eat, drink or smoke in the workplace. Refer to Section 8 for personal protective equipment.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container dry and tightly closed in a cool and well ventilated place.

### 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

**Occupational exposure limit values:** No occupational exposure limit values established.

**DNEL (Derived No Effect Level) for workers and the general population:** No DNEL values available.

**PNEC (Predicted No Effect Concentration) values:** No PNEC values available.

### 8.2 Exposure controls

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## Appropriate engineering controls:

Used general and/or local exhaust ventilation. Provide safety showers and eyewashes.

## Personal protective equipment:

Eye and face protection: Wear protective goggles/mask.

Skin protection: Wear suitable protective clothing, protective gloves (made of PVC or rubber).

Respiratory protection: Respiratory protection required in insufficiently ventilated working areas. And air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

## Environmental exposure controls:

Do not discharge into waterway or sewer systems unless permission has been obtained by the local authority and suitable dilution has been established. Contaminated empty containers must be disposed of as chemical waste. Observe all Federal, State and local laws concerning health and pollution.

## Industrial hygiene:

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

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance:	Low-viscosity colorless liquid
Colour:	Colorless
Odour:	Odourless
pH:	No data available.
Freezing point:	-2.2°C
Boiling point:	144°C (1.33kPa)
Density:	Approx. 1.29g/cm <sup>3</sup> at 20°C (DIN51757)
Vapour pressure:	No data available.
Partition coefficient (n-octanol/water):	Log Kow = 2.34
Solubility(ies):	React with water, insoluble.
Flash point:	150°C (DIN51584)
Auto-ignition temperature:	> 500°C
Flammability:	Non flammable.
Explosive properties:	No data available.
Oxidising properties:	No data available.
Viscosity:	No data available.

### 9.2 Other information

No data available.

## Section 10: Stability and reactivity

### 10.1 Reactivity

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Stable under recommended storage and handling conditions (see section 7, handling and storage).

## 10.2 Chemical stability

Stable under recommended storage conditions.

## 10.3 Possibility of hazardous reactions

Reacts poignantly and autonomic with water, alcohol, amine, acid and alkali solution.

## 10.4 Conditions to avoid

Incompatible products, Excess heat, Exposure to moist air or water.

## 10.5 Incompatible materials

Water, alcohol, amine, acid and alkali solution.

## 10.6 Hazardous decomposition products

Combustion gases contain carbon monoxide, carbon dioxide, nitrogen oxides and hydrogen cyanide.

## Section 11: Toxicological information

### 11.1 Toxicokinetics, metabolism and distribution

No information available.

### 11.2 Information on toxicological effects

#### Acute toxicity:

Acute oral toxicity: LD<sub>50</sub> = 2234 mg/kg (rat);

Acute inhalation toxicity: LC<sub>50</sub> > 640ppm/h (rat);

Acute dermal toxicity: No data available.

#### Skin corrosion/irritation:

Causes skin irritation.

#### Serious eye damage/irritation:

Causes serious eye irritation.

#### Respiratory or skin sensitization:

May cause sensitization by inhalation.

#### CMR effects (Carcinogenicity, Mutagenicity and Toxicity for Reproduction):

The substance is not considered to be CMR substance.

#### STOT-single exposure and repeated exposure:

No information available.

#### Aspiration hazard:

No information available.

## Section 12: Ecological information

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## 12.1 Toxicity

Acute toxicity to fish: No data available.  
Acute toxicity to daphnia: No data available.  
Acute toxicity to algae: No data available.

## 12.2 Persistence and degradability

No information available.

## 12.3 Bioaccumulative potential

No appreciable bioaccumulation potential is to be expected (log Pow 1-3).

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

## 12.6 Other adverse effects

No information available.

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

The relevant directive and local, regional and national regulations must be complied with. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and process according to the European Waste Catalogue. It is recommended that details be sorted out with waste disposer responsible. The waste can be disposed of in a suitable incinerator under compliance with the relevant legislation. After the containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), any product residue adhering to their walls has been rendered harmless, and the product and collection point set up within the framework of the existing take-back scheme of the chemical industry. Container must be recycled in compliance with national legislation and environment regulations.

## Section 14: Transport information

### 14.1 Land transport (ADR/RID)

Proper Shipping Name:	ISOCYANATES, TOXIC, N.O.S. (4-Isocyanatosulphonyltoluene)
Class:	6.1
UN-No.:	2206
Packing group:	III
Hazard label:	6.1

### 14.2 Sea transport (IMDG-Code)

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**Proper Shipping Name:** ISOCYANATES, TOXIC, N.O.S. (4-Isocyanatosulphonyltoluene)  
**Class:** 6.1  
**UN-No.:** 2206  
**Packing group:** III  
**Marine pollutant:** No

## 14.3 Air transport (ICAO-TI/IATA-DGR)

**Proper Shipping Name:** ISOCYANATES, TOXIC, N.O.S. (4-Isocyanatosulphonyltoluene)  
**Class:** 6.1  
**UN-No.:** 2206  
**Packing group:** III

## 14.4 Additional information

**Mark for transport:**



## Section 15: Regulatory information

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

#### EU regulation:

*Authorisations:* No information available.

*Restrictions on use:* No information available.

*EINECS/ELINCS:* The substance (4083-64-1) is listed in the EINECS inventory.

*DSD (67/548/EEC):* The substance (4083-64-1) is listed in the inventory.

#### Other chemical regulation:

*USA - TSCA:* The substance (4083-64-1) is listed in the inventory.

*Canada - DSL:* The substance (4083-64-1) is listed in the inventory.

*Australia - AICS:* The substance (4083-64-1) is listed in the inventory.

*Japan - ENCS:* The substance (4083-64-1) is listed in the inventory.

*China - IECSC:* The substance (4083-64-1) is listed in the inventory.

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## Section 16: Other information

### 16.1 Revision Information:

Date of the previous revision: 03/05/2016.

Date of this revision: 03/05/2017

Revision summary: The second new SDS



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## 16.2 Abbreviations and acronyms

<b>CLP:</b>	EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
<b>CAS:</b>	Chemical Abstracts Service (division of the American Chemical Society).
<b>EINECS:</b>	European Inventory of Existing Commercial Chemical Substances.
<b>RID:</b>	European Rail Transport.
<b>IMDG:</b>	International Maritime Code for Dangerous Goods.
<b>IATA:</b>	International Air Transport Association.
<b>OSHA:</b>	The United States Occupational Safety and Health Administration.
<b>TSCA:</b>	Toxic Substances Control Act, The American chemical inventory.
<b>DSD:</b>	Dangerous Substance Directive (67/548/EEC).
<b>IECSC:</b>	Inventory of existing chemical substances in China.
<b>DSL:</b>	Domestic Substances List, The Canadian chemical inventory.
<b>AICS:</b>	The Australian Inventory of Chemical Substances.
<b>ENCS:</b>	Japanese Existing and New Chemical Substances.

## 16.3 Key literature references and sources for data

ESIS Dataset: European chemical Substances Information System.  
NLM: U.S. National Library of Medicine.  
The Chemical Database: The Department of Chemistry of the University of Akron.

## 16.4 Relevant R-phrases and H-statements

### R-phrases (code and full text):

R14: Reacts violently with water.  
R36/37/38: Irritating to eyes, respiratory system and skin.  
R42: May cause sensitization by inhalation.

### H-statements (code and full text):

H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
H315: Causes skin irritation.  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## 16.5 Training advice

Provide adequate information, instruction and training for operators.

## 16.6 Declare to reader

The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If

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the product is used as a component in another product, this SDS information may not be applicable. According to REACH Article 31(5), the SDS shall be supplied in an official language of the Member State(s) where the substance or mixture is placed on the market, unless the recipient Member State(s) concerned provide otherwise. It should also be noted that this SDS is applicable to the countries with English as an official language.

----- End of the SDS -----