

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT CODE

A0036

DIALLYL TRISULFIDE

PRODUCT NAME

SUPPLIER

Shanghai M & U International Trade Co., Ltd. Rm 1717, No 598 North NuJiang Road 200333 Shanghai, China +86-21-32515501 32515502 sales@mu-intel.com

FOR EMERGENCIES CALL CHEMTREC:

C: 800-424-9300 (24-HOURS)

2. HAZARD IDENTIFICATION:

Emergency Overview

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute Toxicity; Oral, Category 3.

GHS Label elements, including precautionary statements Pictogram:



Signal word Danger

Hazard statement(s)

H301 Toxic if swallowed.

Precautionary statement(s)

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P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301, P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard 1

Flammability 2 Physical hazards 1

NFPA Rating

Health hazard 1 Fire 2 Reactivity Hazard 0

Potential Health Effects

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Inhalation
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May be harmful if inhaled. May cause respiratory tract irritation.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Ingestion

May be harmful if swallowed.

3. COMPOSITION AND INFORMATION ON INGREDIENTS:

Formula	$C_6 H_{10} S_3$
Molecular Weight	178.32 g/mol
CAS-No	2050-87-5
EC-No	218-107-8
Index-No.	N/A
Concentration	N/A

4. FIRST-AID GUIDE:

If inhaled

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

In case of skin contact

Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In case of eye contact

Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.

If swallowed

Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

5. FIRE-FIGHTING GUIDE:

Suitable extinguishing media

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

Special protective equipment for firefighters

Wear self contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

6. ACCIDENTAL RELEASE GUIDE:

Personal precautions

Avoid breathing vapors and provide adequate ventilation.

Environmental precautions

Take steps to avoid release into the environment, if safe to do so.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE:

Precautions for safe handling

Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure. Keep away from sources of ignition. Take precautionary measures against static discharge.

Conditions for safe storage

Keep away from heat, sparks, and flame. Keep container tightly closed. Store in accordance with information listed on the product insert.

8. EXPOSURE AND PERSONAL PROTECTION:

Contains no substances with occupational exposure limit values. Personal protective equipment Respiratory protection For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand 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.

Eye protection

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).

Skin and body protection

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

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance	
Form	LIQUID
Colour	YELLOW
Safety data	
рН	No data available
Melting point (°C)	No data available
Boiling point (°C)	No data available
Flash point (°F) Closed cup145	
Ignition temperature	No data available
Auto ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure (mm Hg@20 °C)	15
Density @25 °C	1.15
Water solubility	INSOLUBLE
Partition coefficient: n-octanol/water	No data available
Relative vapourdensity	6.1
Odor	PUNGENT, GARLIC
Odour Threshold	No data available
Evaporation rate	No data available

10. STABILITY AND REACTIVITY:

Chemical stability

Stable if stored in accordance with information listed on the product insert.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Acids Bases Oxidizing Agents Phosphorous Oxychloride Reducing Agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon dioxide and carbon monoxide

11. TOXICOLOGICAL INFORMATION:

mouse

Acute toxicity

Oral LD50 Oral LD50 5,800 mg/kg rat 5,340 mg/kg Oral LD50 rabbit 3,000 mg/kg LD50 Oral mouse 2,857 mg/kg TDLO Oral man

100 mg/kg

Inhalation LC50

LD50

Oral

Inhalation	TCLO	human	10 mg/m3	6 hr
Inhalation	LC50	rat	50,100 mg/m3	8 hr

Dermal LD50

No data available

Other information on acute toxicity

No data available

Skin corrosion/irritation

Skin	rabbit	500 mg	24 hr mild
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Serious eye damage/eye irritation

Eye	human	186,300 ppm mild
Eye	rabbit	20 mg 24h moderate

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

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.

ACGIH:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System) No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) No data available

Aspiration hazard No data available

Potential health effects Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

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Skin

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Eyes May cause eye irritation.

Signs and Symptoms of Exposure No data available

Additional Information RTECS: Not available

12. ECOLOGICAL INFORMATION:

Toxicity No data available

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

PBT and vPvB assessment No data available

Other adverse effects No data available

13. DISPOSAL RECOMMENDATIONS:

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORTATION INFORMATION:

DOT (US)Not dangerous goods.

IMDG	Not dangerous goods.
ΙΑΤΑ	Not dangerous goods.

15. REGULATORY INFORMATION:

OSHA Hazards

No known OSHA hazards.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title Ill, Section313.

SARA 311/312 Hazards

No SARA hazards

Massachusetts Right to Know Component

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Component

No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right to Know Component

No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION:

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

Prepared By: M&U International LLC

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