# SIGMA-ALDRICH

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SAFETY DATA SHEET

Version 5.5 Revision Date 10/15/2016 Print Date 11/04/2018

# **1. PRODUCT AND COMPANY IDENTIFICATION**

1.1	Product identifiers Product name	:	Dicyclohexyl disulfide
	Product Number Brand	:	W344818 Aldrich
	CAS-No.	:	2550-40-5
1.2	Relevant identified uses of	f th	e substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

# 1.3 Details of the supplier of the safety data sheet

Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone Fax	:	+1 800-325-5832 +1 800-325-5052

# 1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

# 2. HAZARDS IDENTIFICATION

# 2.1 Classification of the substance or mixture

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)** Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

# 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word	Warning
Hazard statement(s) H315 H319 H335	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Precautionary statement(s) P261 P264 P271 P280 P302 + P352 P304 + P340	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ eye protection/ face protection. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

# 3.1 Substances

Formula : C <sub>12</sub> H <sub>22</sub> S <sub>2</sub>	Synonyms	: Cyclohexyl disulfide
Molecular weight : 230.43 g/mol   CAS-No. : 2550-40-5   EC-No. : 219-851-6	Molecular weight CAS-No.	: 230.43 g/mol : 2550-40-5

No components need to be disclosed according to the applicable regulations. For the full text of the H-Statements mentioned in this Section, see Section 16.

# 4. FIRST AID MEASURES

# 4.1 Description of 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.

# 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

# **5. FIREFIGHTING MEASURES**

# 5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture No data available

## **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

# 5.4 Further information

**Further information** No data available

# 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. Evacuate personnel to safe areas. For personal protection see section 8.
- 6.2 Environmental precautions Do not let product enter drains.
- 6.3 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.
- 6.4 **Reference to other sections** For disposal see section 13.

# 7. HANDLING AND STORAGE

# 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection. 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 place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

# **7.3** Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### **Components with workplace control parameters** Contains no substances with occupational exposure limit values.

# 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.

# Personal protective equipment

### Eye/face 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 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**

Impervious 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 multipurpose 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.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	рН	No data available
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	162 - 163 °C (324 - 325 °F) at 8 hPa (6 mmHg) - lit.
g)	Flash point	113 °C (235 °F) - closed cup
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapour pressure	No data available
I)	Vapour density	No data available
m)	Relative density	1.046 g/cm3 at 25 °C (77 °F)
n)	Water solubility	No data available
o)	Partition coefficient: n- octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available
	<b>er safety information</b> data available	

# 10. STABILITY AND REACTIVITY

# 10.1 Reactivity

9.2

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 Strong oxidizing agents, Strong bases
- 10.6 Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides Other decomposition products - No data available

In the event of fire: see section 5

# **11. TOXICOLOGICAL INFORMATION**

### 11.1 Information on toxicological effects

Acute toxicity No data available

Inhalation: No data available

Dermal: No data available

No data available

**Skin corrosion/irritation** No data available

Serious eye damage/eye irritation No data available

**Respiratory or skin sensitisation** 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

No data available

**Specific target organ toxicity - single exposure** Inhalation - May cause respiratory irritation.

#### Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

# Additional Information

RTECS: JO1843850

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

# 12. ECOLOGICAL INFORMATION

# 12.1 Toxicity

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 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

No data available

# **13. DISPOSAL CONSIDERATIONS**

# 13.1 Waste treatment methods

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

# Contaminated packaging

Dispose of as unused product.

# 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 3334 Class: 9 Proper shipping name: aviation regulated liquid, n.o.s. (Dicyclohexyl disulphide)

Poison Inhalation Hazard: No

# IMDG

Not dangerous goods

# ΙΑΤΑ

UN number: 3334 Class: 9 Packing group: III Proper shipping name: Aviation regulated liquid, n.o.s. (Dicyclohexyl disulphide)

# **15. REGULATORY INFORMATION**

# SARA 302 Components

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

### SARA 313 Components

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

# SARA 311/312 Hazards

No SARA Hazards

# Massachusetts Right To Know Components

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

### Pennsylvania Right To Know Components

Dicyclohexyl disulphide	CAS-No. 2550-40-5	Revision Date
New Jersey Right To Know Components	040.11	
Dicyclohexyl disulphide	CAS-No. 2550-40-5	Revision Date

# 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**

Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

# **HMIS Rating**

Health hazard:	0	
Chronic Health Hazard:		
Flammability:	1	
Physical Hazard	0	
NFPA Rating		
NFPA Rating Health hazard:	0	
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### Further information

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# **Preparation Information**

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

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