

DOCK/ CHEMICALS

SEMICONDUCTORS DECISION



Se-Precursor for MOVPE and CVD
application

MO-II/VI

BP: 135°C/275°F/1013 hPa

DiPSe-DIISOPROPYLSELENIDE

MATERIAL SAFETY
DATASHEET

'DiPSe-DIISOPROPYLSELENIDE

DIISOPROPYLSELENIUM DiPSe C₆H₁₄Se

Revision Date: 30.12.2010

According to EC-Directive
1907/2006/EC

'MO-II/VI

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

Identification of the product

Product name: Diisopropylselenide
Acronym: DiPSe

Manufacturer / Supplier Information

Dockweiler Chemicals GmbH
Emil-von-Behring-Str. 76, Postfach 1746, 35007 Marburg, Germany
T +49 6421 39 -6380 | F -6381

Contact for Information

Dockweiler Chemicals GmbH
T +49 6421 39 -6380 | F -63 81

Emergency telephone no.: +49 178 433 74 34

In case of intoxication:
Giftnotrufzentrale - Munich
T +49 89 41 40 -2211 / -2240 | F +49 89 41 40 -2467
In case of burn: local hospital and/or specialist near at hand

2. HAZARDS IDENTIFICATION

Toxic by inhalation and if swallowed. Toxic to aquatic life. Flammable.
Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Synonym

Acronym: DiPSe
(purity 100% w/w)
CAS-No.: 37773-02-7
EG-Index-No.: not registered

EC-No.: not registered
ELINCS-No.: not registered
Molar mass (g/mol): 165.1
Molecular formula: C₆H₁₄Se
Dangerous ingredients: none

4. FIRST AID MEASURES

Prompt medical attention is required in all cases of exposure to Diisopropylselenium and it's products. Rescue personnel should be equipped with appropriate protective equipment (e.g. self contained breathing apparatus) and must be aware of the flammable and toxic nature of Diisopropylselenium

Skin contact

Immediately flush affected areas with large quantities of water. Remove contaminated clothing at once.

Eyes

Flush contaminated eyes with large quantities of water for at least 15 minutes. Hold eyelids open to ensure complete flushing. Summon eye specialist.

'DOCK/
CHEMICALS

SEMICONDUCTORS DECISION

Dockweiler Chemicals GmbH

Emil-von-Behring-Strasse 76 35041 Marburg Germany
T +49 6421 396 -380 | F +49 6421 396 -381
sales@dockchemicals.com

MATERIAL SAFETY
DATASHEET

www.dockchemicals.com

'DiPSe-DIISOPROPYLSELENIDE

Inhalation

Move exposed personnel to an uncontaminated area. Apply fresh air. If breathing is difficult, give oxygen. If breathing has stopped, apply artificial respiration.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Use Water, Sand, Carbondioxid, foam or powder.

Exposure Hazards

Flammable. Vapours heavier than air. Formation of explosive mixtures possible with air. Take measures to prevent electrostatic charging. Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective Equipment for Fire-Fighters

Self-contained breathing apparatus, face shields and safety goggles, safety shoes and fire resistant gloves.

6. ACCIDENTAL RELEASE MEASURES

Personnel Precautions

Evacuate area. Use appropriate protective equipment. Purge equipment with inert gas before attempting repairs. Ensure adequate ventilation. if leak is in container call one of the emergency numbers as appropriate (see section 1.)

Environmental Precautions

Try to stop release, if save to do so. For fire-fighting measures see section 5.

Clean Up Methods

Contact Dockweiler Chemicals GmbH for specific advice.

7. HANDLING AND STORAGE

Handling

Valve outlet seals must remain in place unless container is secured and valve outlet piped to use point. Use a check valve or trap to prevent hazardous back flow into the container. Any equipment used for Diisopropylselenium service must be thoroughly cleaned and prepared to eliminate contamination and must be maintained in a leak free state. All air and moisture in the system must be eliminated before use.

Storage

Protect container from physical damage. Do not allow temperatures to exceed 135°C. Store away from flammable material.

8. LIMITATION AND MONITORING OF EXPOSURE AND PERSONAL PROTECTION

Exposure Controls

OSHA or ACGIH: None established

OES and MEL: None established

Ensure adequate ventilation

Personal Protection

Self-contained breathing apparatus, fire resistant gloves, face shield and safety goggles, safety shoes and fire resistant garments. Safety shower and eyewash.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	colourless
State:	liquid
Odour:	unpleasant
pH-Value:	not available
Viscosity:	not available
Density (g/ccm; 20°C)	1.2
Boiling Point (1013 mbar)	135°C / 75°F
Melting Point:	not available
Flashpoint:	not available
Auto-Ignition Temperature:	not available
Vapor Pressure (10°C)	5.6 mbar
Vapor Pressure (25°C)	13.1 mbar
Vapor Pressure (30°C)	17.1 mbar
Solubility in Water (20°C)	unsoluble
Solubility in aliphatic Hydrocarbons & alcohols (20°C)	soluble

10. STABILITY AND REACTIVITY

Conditions to avoid

Heating above boiling point.

Materials to avoid

Avoid oxidisers and overheating.

**'DOCK/
CHEMICALS**

SEMICONDUCTORS DECISION

Dockweiler Chemicals GmbH

Emil-von-Behring-Strasse 76 35041 Marburg Germany

T +49 6421 396 -380 | F +49 6421 396 -381

sales@dockchemicals.com

**MATERIAL SAFETY
DATASHEET**

www.dockchemicals.com

'DiPSe-DIISOPROPYLSELENIDE

Hazardous Decomposition Products

No information available.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50: no data available

TWA in water, mg/L: 0.01 (by Se)

Irritation

Skin

No data available. Irritation may occur in case of exposure.

Eye

No data available. Irritation may occur in case of exposure.

Respiratory

No data available. Irritation may occur in case of exposure..

Other toxicological information

Long-term, chronic overexposure may affect the skin, eyes, respiratory system and the cardiovascular system.

12. ECOLOGICAL INFORMATION

No data available on the substance as such.

13. WASTE DISPOSAL CONSIDERATIONS

Regional and national regulations should be followed during waste disposal. Contact Dockweiler Chemicals GmbH representatives for waste disposal of unused quantities and regeneration of refilling containers.

14. TRANSPORT INFORMATION

ADR/RID 2011

GGVS/GGVE-class: 6.1

ADR/RID-class: 6.1

UN-no: 3440

Packaging group: II

IMDG ARNDT. 35-08

IMDG/GGVSee-class: 6.1

UN-no: 3440
Packaging group: II
EmS: F-A, S-A
Shipping Name: SELENIDE, COMPOUND, LIQUID, N.O.S. (Diisopropylselenide)
Special Provision: none

ICAO/IATA 2012

ICAO/IATA-class: 6.1
UN-no: 3440 -ALLOWED
Packaging group: II
PAX-PIN: Y609 / 1L
609 /MQ 5L
CAO-PIN: 611 /MQ 60L

15. REGULATORY INFORMATION

GHS-Classification

Flammable Liquids (Category 2)



Signal Word: **DANGER**

Hazard and Precautionary Statements:

H226: Flammable liquid and vapour

H300: Fatal if swallowed

H330: Fatal if inhaled

H373: May cause damage to organs through prolonged or repeated exposure

H410: Very toxic to aquatic life with long lasting effects

**'DOCK/
CHEMICALS**

SEMICONDUCTORS DECISION

Dockweiler Chemicals GmbH

Emil-von-Behring-Strasse 76 35041 Marburg Germany

T +49 6421 396 -380 | F +49 6421 396 -381

sales@dockchemicals.com

**MATERIAL SAFETY
DATASHEET**

www.dockchemicals.com

'DiPSe-DIISOPROPYLSELENIDE

P101: If medical advice is needed, have product container or label at hand
P102: Keep out of reach of children
P103: Read label before use
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire
P240: Ground/bond container and receiving equipment
P241: Use explosion-proof electrical/ventilating/light/tools/equipment
P242: Use only non-sparking tools
P243: Take precautionary measures against static discharge
P260: Do not breathe dust/fume/gas/mist/vapors/spray
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P284: Wear respiratory protection
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P310: Immediately call a POISON CENTER or doctor/physician
P314: Get Medical advice/attention if you feel unwell
P330: Rinse mouth
P370+378: In case of fire: Use water, foam, sand, carbondioxide or powder for extinction
P391: Collect spillage
P403+233: Store in a well ventilated place. Keep container tightly closed
P403+235: Store in a well ventilated place. Keep cool
P405: Store locked up
P501: Dispose of contents/container according to national regulations.

16. OTHER INFORMATION

DATE: 30.12.2010

Ensure operators understand the toxic and flammable nature of this product. Before using this product it is recommended that a risk assessment and safety study be carried out. The above mentioned information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Dockweiler Chemicals GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.

**'DOCK/
CHEMICALS**
SEMICONDUCTORS DECISION

Dockweiler Chemicals GmbH

Emil-von-Behring-Strasse 76 35041 Marburg Germany
T +49 6421 396 -380 | F +49 6421 396 -381
sales@dockchemicals.com

**MATERIAL SAFETY
DATASHEET**

www.dockchemicals.com