

**SECTION 1: Identification of the substance/mixture
and of the company/undertaking****1.1 Product identifier**

Trade name: X-23-7783D

1.2 Relevant identified uses of the substance or mixture and uses advised againstGeneral use Thermal interface seals
For industrial purposes only**1.3 Details of the supplier of the safety data sheet**Company name: Shin-Etsu Silicones Europe B.V.
Street/POB-No.: Bolderweg 32
State/city/postal code: NL-1332 AV Almere
Telephone: +31 36-5493-170
Telefax: +31 36-5326-459
Dept. responsible for information:
QA department,
Telephone: +31 36-5493-179, Email: msds_info@shinetsu.nl**1.4 Emergency telephone number**

Telephone: +31 36-5493-170

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

N; R51-53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements**Labelling (67/548/EEC or 1999/45/EC)**

dangerous for the environment

R phrase(s): R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S phrase(s): S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions / safety data sheet.
Text for labelling Contains Aluminium powder zinc oxide.**2.3 Other hazards**

No risks worthy of mention.

SECTION 3: Composition/ information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterization (preparation):

Organopolysiloxane mixture, anorganic materials

Hazardous ingredients:

Ingredient	Chemical name	Content	classification
EINECS 231-072-3 CAS 7429-90-5	Aluminium powder (pyrophoric)	50-75 %	EU: F; R15. F; R17. CLP: Pyr. Sol. 1; H250. Water-react. 2; H261.
EINECS 215-222-5 CAS 1314-13-2	Zinc oxide	< 25 %	EU: N; R50-53. CLP: Aquatic Acute 1; H400. Aquatic Chronic 1; H410.
EINECS 271-370-0 CAS 68551-20-2	Alkanes, C13 - 16- iso	< 5 %	EU: Xn; R 65 CLP: Asp. Tox. 1; H304.

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation: Provide fresh air. Seek medical treatment in case of troubles.

In case of skin contact: Change contaminated clothing.
Thoroughly wash skin with soap and water.After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
In case of eye irritation consult an ophthalmologist.After swallowing: Rinse mouth and seek medical attention immediately.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No special measures are required.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Special extinguishing powder for metals. Cover spilled material with dry sand or cement.

Extinguishing media which must not be used for safety reasons:

Water, carbon dioxide, foam, extinguishing powder.

5.2 Special hazards arising from the substance or mixture

Emits toxic fumes under fire conditions.

In case of fire may be liberated: Metal oxide smoke, silicium dioxide, formaldehyde, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained breathing apparatus.

Additional information:

Hazchem-Code: 2Z

Use fine water spray to cool endangered containers.

Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid contact with eyes.
 Avoid prolonged or repeated contact with skin.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Plug leak if safely possible.
 Take up mechanically, placing in appropriate containers for disposal.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

not required

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling Provide adequate ventilation. Avoid contact with eyes.
 Avoid prolonged or repeated contact with skin.

Precautions against fire and explosion:
 Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:
 Keep container tightly closed in a cool place.
 Keep container dry. Protect from humidity and water.
 Keep away from heat sources, sparks and open flames.
 Store containers in upright position. Do not drop, drag or bang the container.
 Do not re-use the empty container. Do not weld.

Storage class: 11 = Combustible solids

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS No.	Chemical name	Type	Limit value
7429-90-5	Aluminium powder (pyrophoric)	Great Britain: WEL-TWA	(inhalable dust) 10 mg/m ³
		Great Britain: WEL-TWA	(respirable dust) 4 mg/m ³
1314-13-2	Zinc oxide	Great Britain: WEL-TWA	(fume) 5 mg/m ³
		Great Britain: WEL-STEL	(fume) 10 mg/m ³

Additional information: Aluminium powder, zinc oxide are embedded in the product and should not be present as dust.

8.2 Exposure controls

Provide adequate ventilation.

Occupational exposure controls

- Hand protection: Protective gloves according to EN 374.
Glove material: Plastic or rubber.
Breakthrough time >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed safety glasses according to EN 166.
- Body protection: Wear suitable protective clothing.
- General protection and hygiene measures:
Keep away from sources of ignition - No smoking.
Avoid contact with skin and eyes.
Wash hands before breaks and after work.
Eye wash facility must be provided.

SECTION 9: Physical and chemical properties**9.1 information on basic physical and chemical properties**

- Physical state: solid (grease)
Colour: grey
Odour: weak
- Flash point / flash point range: > 100 °C (c.c.)
Vapour pressure: at 25 °C: negligible
Density: at 25 °C: 2,4 g/cm³
Water solubility: insoluble
Viscosity, dynamic: at 25 °C: 200 Pa*s

9.2 Other information

Evaporation rate (butyl acetate): < 1

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available

10.2 Chemical stability

Product is stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

Will not occur.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition products: Metal oxide smoke, silicium dioxide, traces of incompletely burned carbon compounds, formaldehyde, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****General remarks**

With correct and proper handling/application, no cases health hazards are known.

SECTION 12: Ecological information**12.1 Toxicity**

Aquatic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Water Hazard Class: 2 = hazardous to water

12.2. Persistence and degradability

Further details: 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

No data available

12.6 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Waste key number 08 04 09* = Waste adhesives and sealants containing organic solvents or other dangerous substances

MFSU = manufacture, formulation, supply and use

* = Evidence for disposal must be provided.

Recommendation: Special waste. Dispose of waste according to applicable legislation.

Contaminated packaging

Waste key number 15 01 02 = Plastic packaging or 150104 = Metallic packaging

Recommendation: Dispose of waste according to applicable legislation.

Do not re-use the empty container.

SECTION 14: Transport information**14.1 UN number**

ADR/RID, IMDG, IATA: 3077

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)

14.3 Transport hazard class(es)

ADR/RID: Class 9, Code: M7
 IMDG: Class 9, Code -
 IATA: Class 9

14.4 Packing group

ADR/RID, IMDG, IATA: III

14.5 Environmental hazards

Marine Pollutant Yes

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 90, UN number 3077
 Hazard label 9
 Special provisions 274 335 601
 Limited quantities 5 kg
 EQ E1
 Contaminated packaging: Instructions P002 IBC08 LP02 R001
 Contaminated packaging: Special provisions PP12 B3
 Special provisions for packing together MP10
 Portable tanks: Instructions T1 BK1 BK2
 Portable tanks: Special provisions TP33
 Tank coding SGAV LGBV
 Tunnel restriction code: E



Sea transport (IMDG)

EmS: F-A, S-F
 Special provisions 274, 335
 Limited quantities 5 kg
 EQ E1
 Contaminated packaging: Instructions P002, LP02
 Contaminated packaging: Provisions PP12
 IBC: Instructions IBC08
 IBC: Provisions B3
 Tank instructions: IMO -
 Tank instructions: UN T1, BK2
 Tank instructions Provisions TP33
 Stowage and segregation Category A.
 Properties and observations -



Air transport (IATA)

Hazard Miscellaneous
 EQ E1
 Passenger Ltd.Qty.: Pack.Instr. Y956 - Max.Qty. 30 kg G
 Passenger: Pack.Instr. 956 - Max.Qty. 400 kg
 Cargo: Pack.Instr. 956 - Max.Qty. 400 kg
 Special Provisioning A97 A158 A179
 ERG 9L



14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: 2Z

National regulations - Germany

Storage class: 11 = Combustible solids

Water Hazard Class: 2 = hazardous to water

National regulations - USA

Hazard rating systems



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: B

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
B	

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Further remarks

R phrase(s):

R 15 = Contact with water liberates extremely flammable gas.

R 17 = Spontaneously flammable in air.

R 50/53 = Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 51/53 = Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 65 = Harmful: may cause lung damage if swallowed.

Reason of change:

General revision

Group that issues data sheet

Contact person:

see chapter 1, department responsible for information.

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.