

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: X-23-7762

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

General use: Thermally conductive paste for IC.
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

Postal Code, city: 1332 AV Almere
Netherlands

Telephone: +31 36-5493-170

Telefax: +31 36-5326-459

Dept. responsible for information:

QA department,

Telephone: +31 36-5493-179, Email: sds@shinetsusilicones.eu

1.4 Emergency telephone number

Telephone: +31 36-5493-170

Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (CLP)



Hazard statements: H411 Toxic to aquatic life with long lasting effects.

Precautionary statements: P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards

No risks worthy of mention.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Organopolysiloxane mixture, anorganic materials

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 231-072-3 CAS 7429-90-5	Aluminium powder (pyrophoric)	< 75 %	Pyr. Sol. 1; H250. Water-react. 2; H261.
EC No. 215-222-5 CAS 1314-13-2	Zinc oxide	approx. 20 %	Aquatic Acute 1; H400. Aquatic Chronic 1; H410.

Full text of H- and EUH-statements: see section 16.

Additional information: Aluminium powder, zinc oxide are embedded in the product and therefore no dust is present.

SECTION 4: First aid measures

4.1 Description of first aid measures

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

Following skin contact: Remove mechanically with cloth or paper.
Thoroughly wash skin with soap and water. In case of skin irritation, consult a physician.

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: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult physician immediately.

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

Treat symptomatically.

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, silicon dioxide, traces of incompletely burned carbon compounds, formaldehyde, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained breathing apparatus. Wear appropriate protective equipment.

Additional information: Hazchem-Code: ZZ

Move undamaged containers from immediate hazard area if it can be done safely. Do not breathe fumes. Do not allow extinguishing media to penetrate into surface or ground water.

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. Wear appropriate protective equipment.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Collect dry and place in appropriate containers for disposal. Subsequent cleaning.

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

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid contact with eyes.

Avoid prolonged or repeated contact with skin. Do not breathe vapours. Wear appropriate protective equipment. When using do not eat, drink or smoke.

Precautions against fire and explosion:

Usual measures for fire prevention.

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.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7429-90-5	Aluminium powder (pyrophoric)	Great Britain: WEL-TWA	10 mg/m ³ (inhalable fraction)
		Great Britain: WEL-TWA	4 mg/m ³ (respirable fraction)
		Ireland: 8 hours	1 mg/m ³ (respirable fraction)
1314-13-2	Zinc oxide	Great Britain: MEL/OES-STEL	10 mg/m ³ Smoke
		Great Britain: MEL/OES-TWA	5 mg/m ³ Smoke
		Ireland: 15 minutes	10 mg/m ³ (respirable fraction)
		Ireland: 8 hours	2 mg/m ³ (respirable fraction)

Additional information: Aluminium powder, zinc oxide are embedded in the product and therefore no dust is present.

8.2 Exposure controls

Provide adequate ventilation.

Personal protection equipment

Occupational exposure controls

- Respiratory protection: If vapours form, use respiratory protection. Use filter type A (= against vapours of organic substances) according to EN 14387.
- Hand protection: Protective gloves according to EN 374. Glove material: Plastic or rubber. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles 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, eyes, and clothing. Do not breathe vapour/aerosol.
 - When using do not eat, drink or smoke.
 - Eye wash facility must be provided.
 - Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Form: pasty
Colour: grey
- Odour: odourless
- Odour threshold: No data available
- pH value: No data available

Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	at 25 °C: negligible
Vapour density:	No data available
Density:	at 25 °C: 2.4 g/cm ³
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	No data available
Oxidizing characteristics:	No data available

9.2 Other information

Additional information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

refer to 10.3

10.2 Chemical stability

Product is stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

No dangerous reactions with proper and specified storage and handling.

10.4 Conditions to avoid

Excessive heating. Protect from moisture contamination.

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, silicon dioxide, traces of incompletely burned carbon compounds, formaldehyde, carbon monoxide and carbon dioxide.

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects:	Acute toxicity (oral): Lack of data. Acute toxicity (dermal): Lack of data. Acute toxicity (inhalative): Lack of data. Skin corrosion/irritation: Lack of data. Serious eye damage/irritation: Lack of data. Sensitisation to the respiratory tract: Lack of data. Skin sensitisation: Lack of data. Germ cell mutagenicity/Genotoxicity: Lack of data. Carcinogenicity: Lack of data. Reproductive toxicity: Lack of data. Effects on or via lactation: Lack of data. Specific target organ toxicity (single exposure): Lack of data. Specific target organ toxicity (repeated exposure): Lack of data. Aspiration hazard: Lack of data.
Other information:	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.
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12.2 Persistence and degradability

Further details:	No data available
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12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:	No data available
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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.
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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-DGR:

UN 3077

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

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, Subrisk -

IATA-DGR: Class 9



14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

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 UN 3077
Hazard label:	9
Special provisions:	274 335 375 601
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 BK3
Portable tanks - Special provisions:	TP33
Tank coding:	SGAV LGBV
Tunnel restriction code:	-

Sea transport (IMDG)

EmS:	F-A, S-F
Special provisions:	274, 335, 966, 967, 969
Limited quantities:	5 kg
Excepted quantities:	E1
Contaminated packaging - Instructions:	P002, LP02
Contaminated packaging - Provisions:	PP12
IBC - Instructions:	IBC08
IBC - Provisions:	B3
Tank instructions - IMO:	-
Tank instructions - UN:	T1, BK2, BK2, BK3
Tank instructions - Provisions:	TP33
Stowage and handling:	Category A. SW23
Properties and observations:	-
Segregation group:	none

Air transport (IATA)

Hazard label:	Miscellaneous
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y956 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
Cargo Aircraft only:	Pack.Instr. 956 - Max. Net Qty/Pkg. 400 kg
Special provisions:	A97 A158 A179 A197
Emergency Response Guide-Code (ERG):	9L

14.7 Transport in bulk according to Annex II of Marpol 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
No data available

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H250 = Catches fire spontaneously if exposed to air.
H261 = In contact with water releases flammable gases.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
H411 = Toxic to aquatic life with long lasting effects.

Reason of change: ADR/RID 2017

Date of first version: 8/9/2011

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.