

SAFETY DATA SHEET

Heat Sink Compound Synthetic Reference

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

1.1 Product identifier

Product name : Heat Sink Compound Synthetic Reference
Part no. : 6040-1348

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
 112 ml
Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.
 5500 Lakeside Cheadle Royal Business Park,
 Cheadle, Cheshire, SK8 3GR
 United Kingdom
 Tel: +44 (0) 345 712 5292
e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number


Emergency telephone number (with hours of operation) : CHEMTREC®: +44 20 3807 3798


SECTION 2: Hazards identification


2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

 H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	Category 2
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD	Category 1
H410	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 1

 The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown toxicity :  Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 30 - 60%
 Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: > 60%
 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 10 - 30%

Ingredients of unknown ecotoxicity : Contains 30% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Heat Sink Compound Synthetic Reference

SECTION 2: Hazards identification

- Signal word** : **Warning**
- Hazard statements** : **H373** - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : **P273** - Avoid release to the environment.
P260 - Do not breathe dust.
- Response** : **P391** - Collect spillage.
P314 - Get medical advice/attention if you feel unwell.
- Storage** : Not applicable.
- Disposal** : **P501** - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazardous ingredients** : aluminium nitride
- Supplemental label elements** : Not applicable.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

2.3 Other hazards

- Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- Other hazards which do not result in classification** : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Zinc oxide	EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥10 - ≤25	Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)	[1]
Magnesium oxide	UK (GB) REACH #: Annex V REACH #: Annex V EC: 215-171-9 CAS: 1309-48-4	≥10 - ≤25	Not classified.	[2]
aluminium oxide	EC: 215-691-6 CAS: 1344-28-1	≥10 - ≤25	Not classified.	[2]
aluminium powder (stabilised)	EC: 231-072-3 CAS: 7429-90-5 Index: 013-002-00-1	≥10 - ≤25	Flam. Sol. 1, H228 Water-react. 2, H261	[2]
aluminium nitride	EC: 246-140-8 CAS: 24304-00-5	≥10 - ≤25	STOT RE 2, H373 (lungs) (inhalation) Aquatic Chronic 1, H410 (M=1)	[1]

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SECTION 3: Composition/information on ingredients

			See Section 16 for the full text of the H statements declared above.
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
nitrogen oxides
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid release to the environment. Avoid contact with eyes, skin and clothing. Do not ingest. Empty containers retain product residue and can be hazardous. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container.

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SECTION 7: Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
1	100 tonnes	200 tonnes

7.3 Specific end use(s)

Recommendations : Industrial applications, Professional applications.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
magnesium oxide	EH40/2005 WELs (United Kingdom (UK), 1/2020) TWA 8 hours: 10 mg/m ³ (as Mg). Form: inhalable dust fume. TWA 8 hours: 4 mg/m ³ (as Mg). Form: respirable dust.
aluminium oxide	EH40/2005 WELs (United Kingdom (UK), 1/2020) [aluminium oxides] TWA 8 hours: 4 mg/m ³ . Form: respirable dust. TWA 8 hours: 10 mg/m ³ . Form: inhalable dust.
aluminium powder (stabilised)	EH40/2005 WELs (United Kingdom (UK), 1/2020) TWA 8 hours: 10 mg/m ³ . Form: inhalable dust. TWA 8 hours: 4 mg/m ³ . Form: respirable dust.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result
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SECTION 8: Exposure controls/personal protection

aluminium oxide	DNEL - General population - Long term - Inhalation	0.75 mg/m ³
	DNEL - General population - Long term - Inhalation	0.75 mg/m ³
	DNEL - General population - Long term - Oral	1.32 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	3 mg/m ³
	DNEL - Workers - Long term - Inhalation	3 mg/m ³
aluminium powder (stabilised)	DNEL - Workers - Long term - Inhalation	3.72 mg/m ³
	DNEL - Workers - Long term - Inhalation	3.72 mg/m ³
	DNEL - General population - Long term - Oral	3.95 mg/kg bw/day
aluminium nitride	DNEL - Workers - Long term - Inhalation	0.034 mg/m ³
	DNEL - Workers - Long term - Inhalation	0.47 mg/m ³

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Heat Sink Compound Synthetic Reference**SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties**Appearance**

Physical state	: Solid. [Paste.]
Colour	: White. / Off-white. / Grey.
Odour	: Odourless.
Odour threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: >204°C
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Not applicable.
Flash point	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not available.
pH	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.

Solubility	Media	Result
	water	Insoluble

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure : Not available.

Relative density : 2.2 to 3 [Water = 1]

Vapour density : Not applicable.

Particle characteristics

Median particle size : Not available.

9.2 Other information**9.2.1 Information with regard to physical hazard classes**

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Evaporation rate : <0.01 (butyl acetate = 1)

Physical/chemical properties comments : Not available.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

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SECTION 10: Stability and reactivity

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
Zinc oxide	Rat - Inhalation - LC50 Dusts and mists	>5.7 mg/l [4 hours]
magnesium oxide	Rat - Female - Oral - LD50	3990 mg/kg
aluminium oxide	Rat - Oral - LD50	>10000 mg/kg
aluminium nitride	Rat - Female - Oral - LD50	3470 mg/kg

Conclusion/Summary : Not available.

[Product]

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
magnesium oxide	3990	N/A	N/A	N/A	N/A
aluminium nitride	3470	N/A	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result	
Zinc oxide	Rabbit - Skin - Mild irritant	Duration of treatment/exposure: 24 hours

Conclusion/Summary : Not available.

[Product]

Serious eye damage/eye irritation

Product/ingredient name	Result	
Zinc oxide	Rabbit - Eyes - Mild irritant	Duration of treatment/exposure: 24 hours

Conclusion/Summary : Not available.

[Product]

Respiratory corrosion/irritation

Conclusion/Summary : Not available.

[Product]

Respiratory or skin sensitization

Skin

Conclusion/Summary : Not available.

[Product]

Respiratory

Conclusion/Summary : Not available.

[Product]

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SECTION 11: Toxicological information

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Aluminium nitride	STOT RE 2, H373 (lungs) (inhalation)

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Conclusion/Summary [Product] : Not available.

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SECTION 12: Ecological information

aluminium nitride	Acute - LC50 - Fresh water Fish 11.1 mg/l [96 hours]	-	-
	Acute - LC50 - Fresh water Daphnia 4.07 mg/l [48 hours]	-	-
	Acute - EC50 - Fresh water OECD [Alga, Growth Inhibition Test] Algae ≥10.02 mg/l [72 hours]	-	-

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
aluminium oxide	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
zinc oxide	-	28960	High

12.4 Mobility in soil

Soil/water partition coefficient

Not available.

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
zinc oxide	No	No	No	No	No	No	No
aluminium nitride	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
zinc oxide	No	No	No	No	No	No	No
magnesium oxide	No	No	No	No	No	No	No
aluminium oxide	No	No	No	No	No	No	No
aluminium powder (stabilised)	No	No	No	No	No	No	No
aluminium nitride	No	No	No	No	No	No	No

Regulation (EC) No. 1272/2008 [CLP]

Heat Sink Compound Synthetic Reference

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Zinc oxide	No	No	No	No	No	No	No
aluminium nitride	No	No	No	No	No	No	No

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. The generation of waste should be avoided or minimised wherever possible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

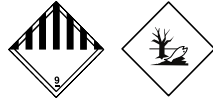
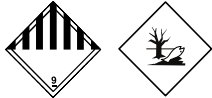
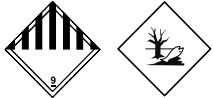
Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN3077	UN3077	UN3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide, aluminium nitride)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide, aluminium nitride)	Environmentally hazardous substance, solid, n.o.s. (Zinc oxide, aluminium nitride)
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.

Heat Sink Compound Synthetic Reference

SECTION 14: Transport information

Additional information

- ADR/RID** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Hazard identification number 90
Limited quantity 5 kg
Special provisions 274, 335, 601, 375
Tunnel code (-)
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Emergency schedules F-A, S-F
Special provisions 274, 335, 375, 966, 967, 969
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
Quantity limitation Passenger and Cargo Aircraft: 400 kg. Packaging instructions: 956. Cargo Aircraft Only: 400 kg. Packaging instructions: 956. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y956.
Special provisions A97, A158, A179, A197, A215
- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
- 14.7 Transport in bulk according to IMO instruments** : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

None of the components are listed / The components are not impacted by a restriction

Labelling : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Heat Sink Compound Synthetic Reference

SECTION 15: Regulatory information

Category

1

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

United States : Not determined.

SECTION 16: Other information

 Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = GB CLP-specific Hazard statement
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods
- IMO = International Maritime Organization
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SGG = Segregation Group
- vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Heat Sink Compound Synthetic Reference

SECTION 16: Other information

Classification	Justification
STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H228 H261 H373 H400 H410	Flammable solid. In contact with water releases flammable gases. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
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Full text of classifications

Aquatic Acute 1 Aquatic Chronic 1 Flam. Sol. 1 STOT RE 2 Water-react. 2	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 FLAMMABLE SOLIDS - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 SUBSTANCES AND MIXTURES WHICH IN CONTACT WITH WATER EMIT FLAMMABLE GASES - Category 2
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Notice to reader

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