

Trade name: ARCTIC MX-2

Version: 1.0.0 / GB

Status: 15.06.2009

Date of printing: 15.06.2009

1.) Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Trade name

ARCTIC MX-2

Use of the substance/preparation

Thermal conductive paste for CPU and GPU use

Company/undertaking identification

Address

ARCTIC COOLING Switzerland AG
Huobstrasse 4
8808 Pfäffikon

Telephone no. +41 325 117 200

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Emergency telephone

+49 (0) 551 / 19240 (Toxic agent information centre North / NORD)

Advice on Safety Data Sheet

info@artic-cooling.com

2.) Hazards identification

Classification

N; R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard symbols

N Dangerous for the environment

R phrases

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

3.) Composition / information on ingredients

Hazardous ingredients

ZINC OXIDE

EC no.	215-222-5	Index no.	030-013-00-7	CAS no.	1314-13-2
Concentration		< 100	%-b.w.		
Classification	N; R50/53				
Hazard symbols	N	R phrases	50/53		

4.) First aid measures

General information

In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

After inhalation

No special measures necessary.

After skin contact

Wash off with soap and water.

After eye contact

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water.

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After ingestion

Seek medical advice immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

5.) Fire-fighting measures

Suitable extinguishing media

Foam; Carbon dioxide; extinguishing powder; Water spray jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In the event of fire, the following can be released:

Silicon dioxide

Carbon dioxide (CO₂)

not combusted hydrocarbons

Possibility of splitting off of small amounts of formaldehyde.

Metal compounds

Special protective equipment for fire-fighters

Use self-contained breathing apparatus. Wear protective clothing.

6.) Accidental release measures

Personal precautions

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away sources of ignition.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Pick up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations".

Additional informations (chapter 6)

Risk of slipping due to leakage/spillage of product.

7.) Handling and storage

Handling

Advice on safe handling

No special measures necessary if stored and handled as prescribed. Avoid the formation and deposition of dust. Provide good ventilation of working area (local exhaust ventilation, if necessary). Avoid eye, skin and clothing contact.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Keep away from sources of heat and ignition.

Storage

Requirements for storage rooms and vessels

Store product in closed containers.

Advice on storage assembly

Do not store together with oxidizing agents.

Keep away from water.

Protect against humidity

Further information on storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight.

8.) Exposure controls / personal protection

Exposure limit values

ZINC OXIDE

CAS no.	1314-13-2
EC no.	215-222-5

Occupational Exposure Standards (OESs) / EH40

Zinc oxide, fume

TWA	5	mg/m ³
STEL	10	mg/m ³

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Eye protection

Safety glasses (EN 166)

Skin protection

Clothing as usual in the chemical industry.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Have eye wash fountain available. Do not inhale dust.

9.) Physical and chemical properties

General information

Form	grease
Colour	grey
Odour	odourless

Important health, safety and environmental information

Fire promoting Properties

Oxidizing	no
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Explosion limits

Remarks	not applicable
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Density

Value	3,35	g/cm ³
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10.) Stability and reactivity

Conditions to avoid

no data available

Materials to avoid

strong oxidizing agents

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Hazardous decomposition products

Formation of low quantities of formaldehyde is possible through degradation at temperatures above 150°C.

Thermal decomposition

Remarks No decomposition if used as prescribed.

11.) Toxicological information

Experience in practice

Inhalation of dusts may irritate the respiratory tract.
Eye contact may cause mechanical irritation through dust particles.

12.) Ecological information

Mobility

Remarks The product is insoluble in water.

Other adverse effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (manufacturer).

13.) Disposal considerations

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

14.) Transport information

Land transport ADR/RID

Class	9	Classification code	M7
Packaging group	III		
Hazard id. no.	90		
Label	9		
UN number	3077		
Technical name	Environmentally hazardous substance, solid, n.o.s.		
Danger releasing substance	Zinc oxide		

Marine transport IMDG

Class	9
Packaging group	III
UN number	3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
EmS	F-A,S-F
Label	9

Air transport ICAO/IATA

Class	9
Packaging group	III
UN number	3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Label	9

15.) Regulatory information

Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC Directive 1999/45/EC.

Hazard symbols

N Dangerous for the environment

R phrases

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

S phrases

2 Keep out of the reach of children.
29 Do not empty into drains.
57 Use appropriate container to avoid environmental contamination.
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

16.) Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.
Regulation (EC) No 1907/2006 (REACH) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC as amended in each case.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Relevant R-phrases (chapter 3):

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

Department issuing safety data sheet

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