

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH)
(COMMISSION REGULATION (EU) 2015/830)

Version 1

Product Name

RR-H103-22PB-R1&RR-212TR-16PR-R1&RR-212TK-16PR-R1&RR-212E-16PK-R1

Issue Date 15-Oct-2017

Revision date 21-Jan-2018

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

1.1. Product identifier

Product Name RR-H103-22PB-R1&RR-212TR-16PR-R1&RR-212TK-16PR-R1&RR-212E-16PK-R1
Product Code 7762

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

Recommended Use Thermal grease
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Cooler Master Technology Inc.
Address 5F of B Block No.18 He Chang E.4th Rd., Zhong Kai Hight-Tech Industrial Development Zone Hui Zhou City. Guang Dong
Postal Code 516006
Phone +86 752-2651-299
FAX +86 752-2608-899
E-mail oscar_wang@coolermaster.com.cn

Importer
Address
Postal Code
Phone
FAX
E-mail

1.4. Emergency telephone number

Asia Pacific Tel:+886-2-2225-3517
China Tel: +86-21-51872177
Europe Tel: +31-(0)40-702-0900
North America Tel: +1-888-624-5099

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Chronic aquatic toxicity Category 2 - (H411)

2.2. Label elements

Symbols/Pictograms



Signal word
Hazard Statements

None
H411 - Toxic to aquatic life with long lasting effects

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Precautionary Statements P273 - Avoid release to the environment
 P391 - Collect spillage
 P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Mixture**

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminum	231-072-3	7429-90-5	68.5	Flam. Sol. 1 (H228) Water-react. 2 (H261)
Zinc oxide	215-222-5	1314-13-2	23.9	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Polysiloxane	-	-	7.5	-
Pigment	-	-	0.1	-

SECTION 4: First aid measures**4.1. Description of first aid measures****General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

No information 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**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for firefighters

Evacuate personnel to safe areas. Move containers from fire area if you can do it without risk. Cool drums with water spray. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Stay upwind. Ensure adequate ventilation, especially in confined areas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

6.4. Reference to other sections

See Section 7 for more information
See section 8 for more information
See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protection recommended in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep locked up and out of reach of children. Store in accordance with local regulations.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Aluminum (CAS #: 7429-90-5)	10 mg/m ³ 5 mg/m ³	STEL 20 mg/m ³ TWA: 10 mg/m ³	-	TWA: 5 mg/m ³ TWA: 2 mg/m ³	-
Zinc oxide (CAS #: 1314-13-2)	10 mg/m ³ 5 mg/m ³ 10 mg/m ³ STEL	TWA: 5 mg/m ³	-	TWA: 4 mg/m ³	-

Chemical Name	Latvia	France	Finland	Germany	Italy
Aluminum (CAS #: 7429-90-5)	TWA: 2 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	TWA: 1.5 mg/m ³	TWA: 4 mg/m ³ TWA: 1.5 mg/m ³	-

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Zinc oxide (CAS #: 1314-13-2)	TWA: 0.5 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³	TWA: 2 mg/m ³ STEL: 10 mg/m ³	TWA: 1 mg/m ³ TWA: 0.1 mg/m ³ TWA: 2 mg/m ³ Ceiling / Peak: 2 mg/m ³ Ceiling / Peak: 0.4 mg/m ³ Ceiling / Peak: 4 mg/m ³	-
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Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Aluminum (CAS #: 7429-90-5)	TWA: 2.5 mg/m ³ TWA: 1.2 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	TWA: 3 mg/m ³	-
Zinc oxide (CAS #: 1314-13-2)	STEL: 10 mg/m ³ TWA: 5 mg/m ³	STEL: 10 mg/m ³ TWA: 2 mg/m ³	STEL: 10 mg/m ³ TWA: 2 mg/m ³	STEL: 3 mg/m ³ TWA: 3 mg/m ³	-

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum (CAS #: 7429-90-5)	TWA: 5 mg/m ³ STEL: 5 mg/m ³	STEL: 30 mg/m ³ STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³	TWA: 1 mg/m ³ respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al
Zinc oxide (CAS #: 1314-13-2)	TWA: 5 mg/m ³ STEL: 10 mg/m ³	-	STEL: 10 mg/m ³ respirable fraction TWA: 2 mg/m ³ respirable fraction	TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ fume (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) STEL: 10 mg/m ³ fume	IDLH: 500 mg/m ³ Ceiling: 15 mg/m ³ dust TWA: 5 mg/m ³ dust and fume STEL: 10 mg/m ³ fume

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls

Engineering Controls

Showers. Eyewash stations. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition.

Personal protective equipment

- Eye/face protection Wear safety glasses with side shields (or goggles).
- Hand Protection Wear protective gloves.
- Skin and body protection Suitable protective clothing.
- Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls

Prevent entry into waterways, sewers, basements or confined areas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste
Color	Gray
Odor	No information available
Odor Threshold	Not determined
pH	Not determined
Melting point/freezing point	Not determined
Boiling point / boiling range	Not determined
Flash point	150 °C
Evaporation rate	Not determined
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not applicable
Vapor Pressure	Not determined
Vapor density	Not applicable
Density	2.5 g/cm ³
Relative density	Not determined
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Not applicable
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information

No information available

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

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

None known based on information supplied.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum (CAS #: 7429-90-5)	LD50> 15900 mg/kg bw(rat)	-	LC50> 0.888 mg/L/4 h(rat)
Zinc oxide (CAS #: 1314-13-2)	> 5000 mg/kg (Rat)	> 2000 mg/kg bw (Rat)	> 1.79 mg/L air 4h (Rat)

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

No eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

STOT - single exposure

No information available

STOT - repeated exposure

No information available

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Aluminum (CAS #: 7429-90-5)	-	> 50 mg/L/96h	-
Zinc oxide (CAS #: 1314-13-2)	2.36 mg/L 96h Skeletonema costatum 2.97 mg/L 96h Skeletonema costatum 1.85 mg/L 96h Skeletonema costatum 1.23 mg/L 96h Skeletonema costatum	1.1 mg/L 96h 23.06 mg/L 84h Danio rerio	0.098 mg/L 48h Daphnia magna 1.55 mg/L 48h Daphnia magna 3.3 mg/L 48h Daphnia magna

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations.
 Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

14.1 UN Number 3077
 14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide 23.9%)
 14.3 Hazard Class 9
 14.4 Packing Group III
 14.5 Environmental hazards Marine pollutant
 14.6 Special precautions No information available
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

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

Component	EINECS/ELINCS	SVHC candidates	RESTRICTIONS - REACH TITLE VIII
Aluminum 7429-90-5 (68.5%)	X	-	-
Zinc oxide 1314-13-2 (23.9%)	X	-	-

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work
 Take note of Directive 94/33/EC on the protection of young people at work
 Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDL	ENCS	IECSC	KECL	PICCS	AICS
Aluminum 7429-90-5 (68.5%)	X	X	Exempt	X	X	X	X
Zinc oxide 1314-13-2 (23.9%)	X	X	X	X	X	X	X

"-" Not Listed
 "X" Listed

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Product Name

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet**TWA** - TWA (time-weighted average)**STEL** - STEL (Short Term Exposure Limit)**Ceiling** - Maximum limit value**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**Full text of H-Statements referred to under section 3**

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H228 - Flammable solid

H261 - In contact with water releases flammable gases

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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