

EC360® EMERALD Thermal Paste Safety Datasheet (SDS)

Last Revision Date: 01-Oct-2024

Section 1: Identification of the Product and of the Company

1.1 Product Identifier

Commercial Name: EC360® EMERALD

Variation	MPN	EAN
EC360® EMERALD 9W/mK Thermal Paste (4g)	EC360T008	0675834582291
EC360® EMERALD 9W/mK Thermal Paste (20g)	EC360T009	0675834582307

1.2 Relevant identified Uses of the Product and Uses Advised Against

Use of the product: Electrical industry and electronics

Uses advised against: None known

1.3 Details of the Company Supplying the Safety Datasheet

Jaden Technologies GmbH
Augustastr. 19
47198 Duisburg
Germany
Email: sales@extremecool360.com

1.4 Emergency Telephone Number

English: +49 20664609360

German: +49 20664609360

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

CLP classification - Regulation (EC) No. 1272/2008

Health hazards

H302 Harmful if swallowed

H320 Causes eye irritation

H332 Harmful if inhaled

Environmental hazards

H413 May cause long lasting harmful effects to aquatic life

Other

P102 Keep out of reach of children

2.2 Label elements

GHS pictogram:



Signal word:

Danger

Danger warnings:

H302 Harmful if swallowed

H320 Causes eye irritation

H332 Harmful if inhaled

H413: May cause long lasting harmful effects to aquatic life

Safety instructions:

P102 Keep out of reach of children

P273 Avoid release to the environment

2.3 Other Hazards

No other hazards are known.

Section 3: Composition / Information on Ingredients

3.1 Chemical Characterization

Silicone compound

3.2 Ingredients

According to EU Directives 67/548/EEC or 1999/45/EC:

Name	CAS-No	Conc. (% w/w)	Classification
Polydimethylsiloxane	63148-62-9	15	H302 Harmful if swallowed H320 Causes eye irritation
Zinc oxide	1314-13-2	28	H332 Harmful if inhaled
Aluminium oxide	1344-28-1	35	H413 May cause long lasting harmful effects to aquatic life
Silica powder	7440-21-3	22	P102 Keep out of reach of children

CLP classifications are based on all current available data including from known international organizations. These classifications are subject to revision as more information becomes available.

Section 4: First Aid Measures

4.1 Protection

No special precautions are necessary for first-aiders.

4.2 First Aid Measures

Inhalation:	Remove to fresh air. Get medical attention if symptoms occur.
Skin contact:	Wash with water and soap. Get medical attention if symptoms occur.
Eye contact:	Flush eyes with water for 15 minutes. Open eyelids frequently. Get medical attention if symptoms occur.
Swallowing:	Do not induce vomiting. Rinse mouth thoroughly with warm water. Get medical attention.

4.3 Most Important Symptoms and Effects, Both Acute and Delayed

None known

4.4 Indication of Immediate Medical Attention and Special Treatment needed

Treat symptomatically and supportively. For further information contact Jaden Technologies GmbH.

Section 5: Firefighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: Dry Powder, Carbon Dioxide (CO₂), Water spray

Unsuitable extinguishing media: None known

5.2 Special Hazards Arising from the Product

Specific hazards during firefighting: Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Silica powder and traces of incompletely burned carbon compounds, carbon dioxide, carbon monoxide, silicone, metal oxides

5.3 Advice for Firefighters

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting. Use protective clothing.

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from the fire area if it is safe to do so. Isolate the combustion source and extinguish it with a fire extinguisher.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Wear proper protective equipment. Avoid eye contact. Do not swallow.

6.2 Environmental Precautions

This product does not contain environmental pollutants and can be cleaned.

6.3 Methods and Materials for Containment and Cleaning Up

If pollution occurs, the product can be removed using kerosene, gasoline or toluene. Scrape up and place in a container fitted with a lid. Clean area as appropriate since spilled materials, even in small quantities, produce a slippery surface. Dispose of

saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Determine and follow applicable laws and regulations for disposal.

Section 7: Handling and Storage

7.1 Safe Handling

General ventilation is recommended. Local ventilation is recommended. Avoid eye contact. Do not swallow. Do not breath. Do not empty into drains. Wash hands after handling, especially before eating, drinking and smoking.

7.2 Storage

Do not store with oxidizing agents. Store in dry environment. Keep away from flames. Avoid direct sunlight. Storage temperature: -20 °C to 40 °C

7.3 Unsuitable Packaging Materials

None known

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Storage temperature may not exceed 40 °C.

8.2 Exposure Controls

Engineering Controls: Avoid direct sunlight, dust

Personal protection equipment

Respiratory protection: Suitable respiratory protection should be worn if the product is used in large quantities, confined spaces or in other circumstances if the OEL may be exceeded. Depending on the working conditions, wear a respiratory mask with a filter(s) A or use a self-contained respirator. The choice of filter depends on the amount of chemical being handled in the place of work. Contact your respiratory protection supplier regarding filter characteristics.

Hand protection: Gloves are normally not required.

Eye / face protection: Use safety glasses.

Skin protection: Protective equipment is not normally required.

Hygiene measures:	Exercise good industrial hygiene practice. Wash hands after handling, especially before eating, drinking and smoking.
Additional information:	These precautions are for room temperature handling. Use at elevated temperature or aerosol / spray applications may require additional precautions.
Environmental exposure controls:	Refer to Section 6 and Section 12.

Section 9: Physical and Chemical Properties

Physical form:	semi-flow liquid
Color:	grey
Odor:	None
Acidity:	Use safety glasses.
Flash point:	Not applicable
Decomposition Temperature:	> 250 °C
Specific gravity:	1.6-1.7 g/cm ³
Melting Point:	Not applicable

Section 10: Stability and Reactivity

10.1 Reactivity

None known.

10.2 Stability

Stable under normal usage conditions.

10.3 Possibility of dangerous reactions

Degradation might occur.

10.4 Conditions to Avoid

Avoid contact with an open flame.

10.5 Materials to Avoid

Can react with acids and bases.

10.6 Hazardous Decomposition Products

Carbon oxides and traces of incompletely burned carbon compounds, silicon dioxide, metal oxides, formaldehyde.

Section 11: Toxicological Information

11.1 Acute Toxicity

Inhalation:	No significant effects expected from a single short-term exposure
Eye contact:	Direct contact may cause temporary discomfort.
Skin contact:	No significant irritation expected from a single short-term exposure.
Ingestion:	Low ingestion hazard in normal use.

11.2 Chronic Toxicity

Inhalation:	No known applicable information.
Skin contact:	Repeated or prolonged exposure may cause irritation.
Ingestion:	Repeated ingestion or swallowing large amounts may cause internal injuries.

11.3 Other Health Effects

Inhalation:	Inhalation of fumes may result in metal fume fever, a flu-like illness with symptoms of metallic taste, fever and chills, aches, chest tightness, and cough.
Sensitizing:	None known.
Mutagenic:	None known.
Reproductive:	None known.
Carcinogenic:	None known.

Section 12: Ecological Information

12.1 Ecotoxicity Effects

None known.

12.2 Persistence and Degradability

The product has good resistance to microbial degradation but can be broken down into small molecules using acid hydrolysis of the soil. Photolysis under light can further degrade it into non-toxic silica, aluminium sulfonated sodium silicate and carbon dioxide.

12.3 Release to Waters

No adverse effects on bacteria are predicted.

Section 13: Disposal Considerations

13.1 Product Disposal

Can be burned in a chemical incinerator equipped with an afterburner and afterwards be disposed of in landfill.

13.2 Packaging Disposal

Can be burned in a chemical incinerator equipped with an afterburner or recycled.

13.3 Disposal information

According to the European Waste Catalogue, waste codes are application specific and not related to specific products. Waste codes should be assigned by the user, preferably in dialog with the waste disposal authorities.

Section 14: Transport Information

14.1 Road / Rail

Not subject to ADR / RID.

14.2 Sea transport

Not subject to IMDG code. With regard to transport the International Maritime Dangerous Goods (IMDG) Code (2016 Edition) is cited and considered.

14.3 Air transport

Not subject to IATA / ICAO regulations. With regard to transport the International Air Transport Association(IATA) Dangerous Goods Regulations (60th Edition, 2019) and the International Civil Aviation Organization (ICAO) Technical Instructions (2011-2012 Edition) are cited and considered.

14.4 Additional Information

Our products are properly classified, described, packaged, marked, labeled and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in CE and RoHS that can be treated as "Non-Dangerous Goods".

Section 15: Regulatory Information

15.1 Safety, Health and Environmental Regulations / Legislation Specific for the Product

EINECS:	Not determined.
TSCA:	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances

Section 16: Other Information

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. Jaden Technologies GmbH shall not be held responsible for any defect in the product covered by this Safety Data Sheet, should the existence of such a defect not be detectable considering the current state of scientific and technical knowledge.

It is the responsibility of persons in receipt of this Safety Data Sheet (SDS) to review these recommendations in the specific context of handling, disposing or in any other way using the product and determine whether they are appropriate. If the recipient subsequently produces a formulation containing the product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this Safety Data Sheet to their own Safety Data Sheet in compliance with applicable laws and regulation.

The logo for EC360 EMERALD. It features a green asterisk-like symbol to the left of the text 'EC360' in black, followed by 'EMERALD' in green.

This Safety Data Sheet has been prepared in compliance with European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive a Safety Data Sheet applicable to the country in which the product is sold and intended to be used from your local EC360 supplier. Please note that the appearance and content of the Safety Data Sheet may vary between different countries, reflecting different compliance requirements.