Revision Date APRIL 2013 Revision 9



SAFETY DATA SHEET NON-SILICONE HEAT TRANSFER COMPOUND

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name

NON-SILICONE HEAT TRANSFER COMPOUND

Product No.

HTC, EHTC35SL, EHTC700G, EHTC02S, EHTC10S, EHTC20S, EHTC01K, ZE

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

Identified uses

Heat Dissipation

Uses advised against

At this moment in time we do not have information on use restrictions. They will be included

in this safety data sheet when available

1.3. Details of the supplier of the safety data sheet

Supplier

ELECTROLUBE. A division of HK

WENTWORTH LTD

ASHBY PARK, COALFIELD WAY,

ASHBY DE LA ZOUCH, LEICESTERSHIRE

LE65 1JR

UNITED KINGDOM +44 (0)1530 419600 +44 (0)1530 416640 info@hkw.co.uk

1.4. Emergency telephone number

+44 (0)1530 419600 between 8.30am - 5.00pm GMT Mon - Fri

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical

Not classified.

Hazards

Human health

Not classified.

Environment

Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

Classification (1999/45/EEC)

N;R50/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word

Warning

Hazard Statements

H410

Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P273

Avoid release to the environment.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

ZINC OXIDE 60-80%

CAS-No.: 1314-13-2 EC No.: 215-222-5

Classification (EC 1272/2008) Aquatic Acute 1 - H400 Classification (67/548/EEC)

N;R50/53

Aquatic Chronic 1 - H410

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition Comments

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention.

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Get medical attention.

Skin contact

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention if irritation persists after washing.

Eve contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

4.3. Indication of any immediate medical attention and special treatment needed

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

5.3. Advice for firefighters

Special Fire Fighting Procedures

No specific fire fighting procedure given.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

| Name | STD | TWA - 8 Hrs | STEL - 15 Min | Notes |
|------------|-----|-------------|---------------|-------|
| ZINC OXIDE | WEL | 5 mg/m3 | 10 mg/m3 | |

WEL = Workplace Exposure Limit.

Ingredient Comments

No exposure limits noted for ingredient(s).

8.2. Exposure controls

Protective equipment





Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

Engineering measures

Not relevant

Respiratory equipment

Respiratory protection not required.

Hand protection

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Butyl rubber gloves are recommended.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable. EN166

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Paste

Colour

White.

Odour

No characteristic odour.

Solubility

Insoluble in water

Initial boiling point and boiling range

>250 (482 F)

(°C)

Relative density

2.04 @ 20 °c (68 F)

Flash point (°C)

230 (446 F) CC (Closed cup).

Auto Ignition Temperature (°C)

425 (797F)

9.2. Other information

None

Volatile Organic Compound (VOC)

a/litre

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Not applicable.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

No specific conditions are likely to result in a hazardous situation. Avoid frost.

10.5. Incompatible materials

Materials To Avoid

No specific, or groups of materials are likely to react to produce a hazardous situation.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information

No information available.

Other Health Effects

This substance has no evidence of carcinogenic properties.

Ingestion

May cause stomach pain or vomiting.

Health Warnings

No specific health warnings noted. No specific acute or chronic health impact noted, but this chemical may still have adverse impact on human health, either in general or on certain individuals with pre-existing or latent health problems.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

The product contains substances which are insoluble in water and which sediment in water systems.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

| UN No. (ADR/RID/ADN) | 3077 |
|----------------------|------|
| UN No. (IMDG) | 3077 |
| UN No. (ICAO) | 3077 |

14.2. UN proper shipping name

| Proper Shipping Name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE, |
|----------------------|---|
| | |

DIPHENYLAMINE)

14.3. Transport hazard class(es)

| ADR/RID/ADN Class | 9 |
|-------------------|---|
| ADR/RID/ADN Class | Class 9: Miscellaneous dangerous substances and articles. |

| ADRIRIDIADN Class | Class 9: Miscellaneous dangerous substance |
|---------------------|--|
| ADR Label No. | 9 |
| IMDG Class | 9 |
| ICAO Class/Division | 9 |

Transport Labels



14.4. Packing group

| ADR/RID/ADN Packing group | 111 |
|---------------------------|-----|
| IMDG Packing group | 111 |
| ICAO Packing group | 111 |

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



14.6. Special precautions for user

EMS

F-A, S-F

Emergency Action Code

2Z

Hazard No. (ADR)

90

Tunnel Restriction Code

(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By

Helen O'Reilly

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SDS No

10484

Risk Phrases In Full

R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

Hazard Statements In Full

H400

Very toxic to aquatic life.

H410

Very toxic to aquatic life with long lasting effects.



Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.