

Non-Silicone Heat Transfer Compound

Product Code: HTC

PRODUCT DESCRIPTION

Electrolube Heat Transfer Compound is recommended where the efficient and reliable thermal coupling of electrical and electronic components is required or between any surface where thermal conductivity or heat dissipation is important. They should be applied to the base and mounting studs of diodes, transistors, thyristors, heat sinks, silicone rectifiers and semi-conductors, thermostats, power resistors and radiators.

HTC contains no silicones and thus cannot migrate onto electrical contacts with consequent high contact resistance, arcing or mechanical wear. Similarly soldering problems caused by silicones will not be encountered.

A non silicone product is essential for applications where the use of silicone in any product is prohibited or where the specification set by the company states this.

A full range of heat transfer products are available from Electrolube. This range includes silicone based pastes for very high temperature applications (HTS), a RTV rubber (TCR), an adhesive epoxy (TBS) and an epoxy based potting resin (ER2074).

A even higher thermally conductive paste is also available, order code HTSP, for special applications where thermal management is critical.

FEATURES

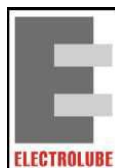
- * Excellent non-creep characteristics.
- * Wide operating temperature range.
- * Excellent thermal conductivity even at high temperatures.
- * Easy to handle.
- * Economic in use.
- * Low in toxicity.
- * White colour enables treated parts to be easily identified.
- * Low evaporation weight loss.

TECHNICAL
DATA
SHEET



**Copyright
Electrolube
2003**

All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification. Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.



Non-Silicone Heat Transfer Compound

- Page 2

TYPICAL PROPERTIES

Colour:	White
Base:	Blend of synthetic fluids
Thermo-conductive Component:	Powdered metal oxides
Thermal Conductivity:	0.9 W/m.K
Density @ 20°C:	2.04 g/cm ³
Temperature Range:	-50°C to +170°C
Weight Loss after 168 hours @ 170°C:	0.98%
Permittivity @ 10 ⁶ Hz:	4.2
Specific Resistance:	1 x 10 ¹⁴ Ohms/cm
Dielectric Strength:	42 kV/mm
Penetration:	210-250

PACKAGING

2 ml Syringe
10 ml Syringe
20 ml Syringe
35 ml Luer Lock Syringe
700 gram cartridge
1 Kg Bulk
25 Kg Bulk

ORDER CODE

HTC02S
HTC10S
HTC20S
HTC35SL
HTC700G
HTC01K
HTC25K

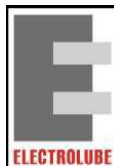
NATO Stock No (10ml): 6850-99-775-5881
NATO Stock No (20ml): 5835-99-775-5881

TECHNICAL
DATA
SHEET



**Copyright
Electrolube
2003**

All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification. Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.



SAFETY DATA SHEET

NON-SILICONE HEAT TRANSFER COMPOUND

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME NON-SILICONE HEAT TRANSFER COMPOUND
 PRODUCT NO. EHTC35SL/ 700G/ 02S/ 10S/ 20S/ 01K/ 25K
 APPLICATION Manufacture of electrical equipment
 SUPPLIER ELECTROLUBE. A division of HK
 WENTWORTH LTD
 KINGSBURY PARK, MIDLAND
 ROAD
 SWADLINCOTE
 DERBYSHIRE, DE11 0AN
 UNITED KINGDOM
 +44(0)1283 222 111
 +44(0)1283 550 177

2 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
C7-C9 Branched alkyl esters	406-040-9	125643-61-0	< 1%	N;R51/53.
ZINC OXIDE	215-222-5	1314-13-2	60-100%	N;R50/53

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

EC No = EINECS No Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels

3 HAZARDS IDENTIFICATION

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

CLASSIFICATION N;R50/53.

4 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.

INGESTION

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.

EYE 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.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

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

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

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

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS

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

NON-SILICONE HEAT TRANSFER COMPOUND

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide sufficient ventilation during operations which cause vapour formation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

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.

EYE PROTECTION

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

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 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Paste		
COLOUR	White		
ODOUR	No characteristic odour.		
SOLUBILITY	Insoluble in water		
BOILING POINT (°C)	>250	RELATIVE DENSITY	2.04 @ 20 °c
FLASH POINT (°C)	230 CC (Closed cup).	AUTO IGNITION TEMPERATURE (°C)	425

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Not known.

11 TOXICOLOGICAL INFORMATION

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.

Other Health Effects

This substance has no evidence of carcinogenic properties.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

NON-SILICONE HEAT TRANSFER COMPOUND

WATER HAZARD CLASSIFICATION

WGK 2

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

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

14 TRANSPORT INFORMATION



UK ROAD CLASS	9		
PROPER SHIPPING NAME	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE, C7-C9 Branched alkyl esters)		
UN NO. ROAD	3077	UK ROAD PACK GR.	III
ADR CLASS NO.	9	ADR CLASS	Class 9: Miscellaneous dangerous substances and articles.
ADR PACK GROUP	III	HAZARD No. (ADR)	90
ADR LABEL NO.	9	HAZCHEM CODE	2Z
CEFIC TEC(R) NO.	90GM7-III	RID CLASS NO.	9
RID PACK GROUP	III	UN NO. SEA	3077
IMDG CLASS	9	EMS	F-A, S-F
MFAG	See Guide	MARINE POLLUTANT	No.
UN NO. AIR	3077	AIR CLASS	9
AIR PACK GR.	III		

15 REGULATORY INFORMATION

LABELLING



Dangerous for the environment

RISK PHRASES

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

SAFETY PHRASES

S57 Use appropriate containment to avoid environmental contamination.
 S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations. The Control of Substances Hazardous to Health Regulations 1988.

ENVIRONMENTAL LISTING

Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste Regulations) Act 1980. Control of Pollution Act 1974.

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EEC. Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EEC.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

NON-SILICONE HEAT TRANSFER COMPOUND

16 OTHER INFORMATION

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Helen O'Reilly

REVISION DATE JUNE 2006

REV. NO./REPL. SDS GENERATED 5

SDS NO. 10484

RISK PHRASES IN FULL

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

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.