

PRODUCT SAFETY DATA SHEET
According to EC directive 91/155/EEC and subsequent amendments



Product Name: AK-455

Date: Aug 2006

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Trade Name	Akasa ® AK-455 Thermal Interface Material ST801
Company	Akasa (Europe) Ltd. Unit 31, Metropolitan Centre, Taunton Road, Greenford, Middlesex. United Kingdom. UB6 8UQ Tel: +44 (0)20 8578 0055 Fax: +44 (0)20 8578 1122
Service	Akasa (Asia) Corp. Tel: +886 (0) 2 2999 6289 Akasa (Europe) Ltd. Tel: +44 (0)20 8578 0055
Emergency Phone Number	Adrian Young UK (24) +44 (0)7718539514
Use of substance/preparation	Electrical & Electronics Applications (Silicone Compound) Thermal conductive compound material

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterization	Silicone Compounds 50% Carbon Compounds 20% Metal Oxides Compounds 30%
Hazardous Ingredients	Cat No:- 7439921 Lead content (Pb) trace only 11ppm detected see SGS safety No GZSCR050208733/LP

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3. HAZARDS IDENTIFICATION

The principle hazards of the product as supplied are :-
Very toxic to aquatic organisms, may cause long-term adverse effects in aquatic environment .
Some hydrogen gas may be released. Hydrogen is flammable and can form explosive mixtures with air.

4. FIRST AID MEASURES

On contact with eyes	No first aid should be required
On skin contact	No first aid should be required
If inhaled	No first aid should be required
On ingestion	No first aid should be required

5. FIRE FIGHTING MEASURES

Suitable extinguishing media	Carbon Dioxide , foam or dry powder. Water can be used to cool fire exposed containers.
Unsuitable extinguishing media	None Known
Hazards during fire fighting	None Known
Special protective equipment/procedures	Self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after fire is out.
Hazardous combustion products	Silica , carbon oxides and traces of incompleley burned carbon compounds. Formaldehyde,Hydrogen,Metal products.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear proper protective equipment.
Precautions to protect the environment	Prevent from spreading or entering into the drains , ditches or rivers by using sand , earth or other appropriate barriers.
Methods for cleaning up	Scrape up and place in a container fitted lid. The spilled product produces an extremely slippery surface.

7. HANDLING AND STORAGE

Advice on safe handling	General ventilation is required. Local ventilation is recommended. Avoid Eye contact.
Advice on storage	Do not store with oxidising agents. This product slowly evolves hydrogen on storage. Keep container closed and store away from water or moisture.
Specific uses	Refer to Technical data sheet
Unsuitable packaging materials	Do not store in or use glass containers.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	Ventilation : Refer section 7 (above)
Exposure controls for hazardous components	
<u>Personal protection equipment</u>	
Respiratory protection	Suitable respiratory protection should be worn if the product is used in large quantities, confined spaces or in other circumstances where the OEL may be approached or exceeded . A filtering half mask is recommended. BP filter. Contact your respiratory protection supplier.
Hand protection	Gloves are not normally required.
Eye protection	Safety glasses should be worn.
Skin protection	Protective equipment is not normally necessary
Hygiene measures	Exercise good industrial hygiene practise. Wash after handling ,especially before eating .
Environmental exposure controls	Refer to section 6 & 12
Additional information	These precautions are for room temperature handling. Use at Elevated temperature or aerosol / spray applications may be added precautions.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form Grease Colour Gray Odour Slight
Important health, safety & environmental information Explosive properties	No
Specific gravity	>2.5 @25 .C
Oxidizing properties	No

The above information is not intended for use in preparing product specification.
Contact Akasa for more details.

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10. STABILITY AND REACTIVITY

Stability	Stable under normal usage conditions.
Conditions to avoid	None established.
Materials to avoid	Can react with strong oxidising agents. Hydrogen is liberated on contact with water, alcohols ,acidic or basic materials , many metals or metallic compounds and can form explosive mixtures in the air.
Hazardous decomposition products	See section 11 If this product is heat to >150 degrees .C trace quantities of map be released and may require adequate ventilation.

TOXICOLOGICAL INFORMATION

On contact with eyes	May cause temporary discomfort.
On skin contact	No adverse effects are normally expected.
If inhaled	No adverse effects are normally expected
On ingestion	No adverse effects are normally expected

¹ Based on product test data

² Based on test data from similar products

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11. ECOLOGICAL INFORMATION

<p><u>Environmental fate and distribution</u></p> <p align="center">Solid material , insoluble in water.</p>
<p><u>Ecotoxicity effects</u></p> <p align="center">Very toxic to aquatic organisms and may cause long – tern adverse effects in the aquatic environment . However due to the physical form and the water insolubility of the bioavailability is negligible.</p>
<p><u>Fate and effects in waste water treatment plants</u></p> <p align="center">No adverse effects on bacteria are predicted.</p>

12. DISPOSAL CONSIDERATIONS

Product disposal	This material must be disposed of as hazardous waste. According to the European waste catalogue Waste codes are not specific , application specific. Waste codes should be assigned by the user preferably in discussion with the waste disposal authorities.
Packaging disposal	Dispose of in accordance with local regulations, Waste codes should be assigned by the user preferably in discussion with the waste disposal authorities' .

13. TRANSPORT INFORMATION

Road/Rail (ADR/RID)	UN 3077
Proper shipping name	Environmentally Hazardous substance Solid , N.O.S ,
Class	9
Packing group	III
Labels	9
Sea treatment (IMDG)	Not Subject to IMDG code <i>regulations</i>

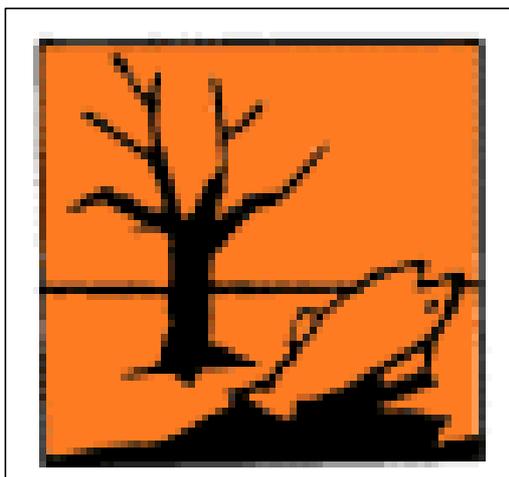
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Air transport (IATA)	Not Subject to IATA <i>regulations</i>
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14. REGULATORY INFORMATION

<u>Labelling according to EEC Directive</u> Symbol	N Dangerous for the environment. Substances and preparations which, were they to enter into the environment, would present or might present an immediate or delayed danger for one or more components of the environment.
R-phrases	R50/53 (percentage by weight of each substance) Very toxic to aquatic organisms may cause long –term adverse effects in the aquatic environment.
S-phrases	S9 Keep container in a well-ventilated place S51 Use only in well-ventilated areas. S57 Use appropriate container to avoid environmental contamination S60 This material and its container must be disposed of as hazardous waste
<u>National legislation/regulations</u> Ozone depleting chemicals	No ozone depleting chemicals are present or used in manufacture.
<u>Status</u> EINECS	All ingredients listed or exempt.
TSCA	All chemicals substanes in this areincluded on or exempted from listing on the TSCA Inventory of chemical substances.



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15. OTHER INFORMATION

This product safety datasheet was prepared in compliance with commission directive **91/155/EEC , 67/548/EEC and 1999/45/EC**

As well as their relevant amendeents , on the approximation of the law , regulations & administrative provisions relative to the classification , packging and labelling of dangerous substances & preparations.

All information and instruction provided in this Satey DataSheet (SDS) are based on the current state of the sciencetific and technical knowledge at the date indicated on the SDS. Should the exsistance of such defect not be detectable considering the current state of scientific and technical knowlesdge .