

SAFETY DATA SHEET

SILVER CONDUCTIVE PAINT

RS CHIP3 MSDS Date 15/06/03

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:

PRODUCT NAME: SILVER CONDUCTIVE PAINT

PART No.: ESCP-BULK

SUPPLIER: ELECTROLUBE. A division of HK WENTWORTH LTD
KINGSBURY PARK, MIDLAND ROAD
MIDLAND ROAD, SWADLINCOTE
DERBYSHIRE. DE11 0AN
Tel: +44 (0) 1283 222111
Fax: +44 (0) 1283 550177

Supplied by:
RS Components Ltd.
Birchington Road, Corby, Northants, NN17 9RS.
Tel: (01536) 402888

2. COMPOSITION/INFORMATION ON INGREDIENTS:

| NAME | EINECS Nr.: | CLASSIFICATION | CONTENT |
|------------------------------------|-------------|------------------------|---------|
| CAS No.: ETHANOL 64-17-5 | 200-578-6 | F R-11 | 5-10 % |
| ACETONE 67-64-1 | 200-662-2 | Xi ,F R-11, 36, 66, 67 | 1-5 % |
| ETHYL ACETATE 141-78-6 | 205-500-4 | Xi ,F R-11, 36, 66, 67 | 1-5 % |
| 1 ETHOXY- 2- PROPANOL 1569-02-4 | | Xi R-10, 36 | 30-60 % |

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

3. HAZARDS IDENTIFICATION:

Highly flammable. Irritating to eyes.

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! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Rinse mouth thoroughly. Get medical attention.

SKIN: 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.

EYES: 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: | Use: Alcohol resistant foam. Powder. Dry chemicals, sand, dolomite etc. |
| SPECIAL FIRE FIGHTING PROCEDURES: | Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. |
| UNUSUAL FIRE & EXPLOSION HAZARDS: | May explode in a fire. May develop highly toxic or corrosive fumes if heated. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers. |

6. ACCIDENTAL RELEASE MEASURES:

| | |
|-------------------------------|---|
| SPILL CLEANUP METHODS: | Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers. |
|-------------------------------|---|

7. HANDLING AND STORAGE:

| | |
|-----------------------------|---|
| USAGE PRECAUTIONS: | Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Provide good ventilation. |
| STORAGE PRECAUTIONS: | Flammable/combustible - Keep away from oxidizers, heat and flames. Keep in cool, dry, ventilated storage and closed containers. Keep in original container. |
| STORAGE CRITERIA: | Flammable liquid storage. |

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

| INGREDIENT NAME: | CAS No.: | STD | LT EXP 8 Hrs | ST EXP 15 Min |
|------------------|----------|-----|--------------|---------------|
| ETHANOL | 64-17-5 | OES | 1000 ppm | No std. |
| ACETONE | 67-64-1 | OES | 500 ppm | 1500 ppm |
| ETHYL ACETATE | 141-78-6 | OES | 200 ppm | 400 ppm |

INGREDIENT COMMENTS: OES = Occupational Exposure Standard.

PROTECTIVE EQUIPMENT:



| | |
|---------------------------------|--|
| VENTILATION: | All handling to take place in well ventilated area. |
| RESPIRATORS: | No specific recommendation made, but respiratory protection must be used if the general level exceeds the Occupational Exposure Level (OEL). |
| PROTECTIVE GLOVES: | Use protective gloves. |
| EYE PROTECTION: | Wear approved safety goggles. |
| OTHER PROTECTION: | Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. |
| HYGIENIC WORK PRACTICES: | 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. No eating or drinking while working with this material. |

9. PHYSICAL AND CHEMICAL PROPERTIES:

| | |
|---------------------|-----------------|
| APPEARANCE: | Liquid. |
| COLOUR: | Grey. |
| ODOUR/TASTE: | Characteristic. |

| | | | |
|---|-----|--------------------------|----|
| BOILING POINT (°C, interval): | 56 | Pressure: | |
| DENSITY/SPECIFIC GRAVITY (g/ml): | 1.7 | Temperature (°C): | 20 |
| FLASH POINT (°C): | -19 | Method: | |
| AUTO IGNITION TEMP. (°C): | 255 | | |
| FLAMMABILITY LIMIT - LOWER(%): | 1.3 | | |
| FLAMMABILITY LIMIT - UPPER(%): | 19 | | |

10. STABILITY AND REACTIVITY:

| | |
|-----------------------------|---|
| STABILITY: | Normally stable. |
| CONDITIONS TO AVOID: | Avoid heat, flames and other sources of ignition. |

11. TOXICOLOGICAL INFORMATION:

| | |
|------------------------------|--|
| INHALATION: | High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. |
| INGESTION: | May cause stomach pain or vomiting. |
| SKIN: | Prolonged or repeated exposure may cause severe irritation. |
| EYES: | Irritating to eyes. |
| OTHER HEALTH EFFECTS: | This substance has no evidence of carcinogenic properties. |

12. ECOLOGICAL INFORMATION:

| | |
|--------------------------------|--|
| ECOLOGICAL INFORMATION: | Not regarded as dangerous for the environment. |
|--------------------------------|--|

13. DISPOSAL CONSIDERATIONS:

| | |
|--------------------------|---|
| DISPOSAL METHODS: | Absorb in vermiculite or dry sand, dispose in licensed special waste. Dispose of in accordance with Local Authority requirements. |
|--------------------------|---|

14. TRANSPORT INFORMATION:

LABEL FOR CONVEYANCE:



| | |
|---------------------------------|------|
| UN No. ROAD: | 1263 |
| UK ROAD TRANSPORT CLASS: | 3 |
| UK ROAD PACK GR.: | II |

| | |
|--------------------------------|---------------------------------|
| ADR CLASS No.: | 3 |
| ADR CLASS: | Class 3: Flammable liquids. |
| ADR ITEM No.: | II |
| ADR MARGINAL: | 2301 |
| ADR LABEL No.: | 3 |
| HAZCHEM CODE: | 3YE |
| CEFIC TEC(R) No.: | 30GF1-I+II,30GF1-sp |
| PROPER SHIPPING NAME I: | PAINT OR PAINT RELATED MATERIAL |
| RID CLASS No.: | 3 |
| RID ITEM No.: | II |
| UN No. SEA: | 1263 |
| IMDG CLASS: | 3 |
| IMDG PACK GR.: | II |
| EmS No.: | F-E; S-E |
| MFAG TABLE No.: | See Guide |
| MARINE POLLUTANT: | No. |
| UN No., AIR: | 1263 |
| ICAO CLASS: | 3 |
| AIR PACK GR.: | II |

15. REGULATORY INFORMATION:

LABEL FOR SUPPLY:



| | |
|-----------------------------------|--|
| RISK PHRASES: | R-11 Highly flammable. R-36 Irritating to eyes. |
| SAFETY PHRASES: | S-16 Keep away from sources of ignition - No Smoking. S-25 Avoid contact with eyes. S-51 Use only in well ventilated areas. S-9 Keep container in a well ventilated place. |
| UK REGULATORY REFERENCES: | Petroleum (Consolidation) Act, as amended 1984 SI 1244. Highly Flammable Liquid Regulations 1972. Fire precautions Act 1971. Health and Safety at Work Act 1974. 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. 91\155. Dangerous Substance Directive 67\548. Dangerous Preparations Directive 88\379. |
| STATUTORY INSTRUMENTS: | Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health. |
| APPROVED CODE OF PRACTICE: | Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations L62. |
| GUIDANCE NOTES: | Occupational Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108). |

16. OTHER INFORMATION:

| | |
|--------------------------------------|--|
| USER NOTES: | CN No 32089091 |
| REVISION COMMENTS: | Revised in accordance with CHIP3 and EU Directive 1999/45/EC |
| ISSUED BY: | Helen O'Reilly |
| REVISION DATE: | MAY 2003 |
| REV. No./REPL. SDS GENERATED: | 0 |
| SDS No.: | 10581 |
| 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 unless specified in the text. The information contained in this 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 guidance for the safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification |
| R-PHRASES (Full Text): | R-10 Flammable. R-36 Irritating to eyes. R-11 Highly flammable. R-66 Repeated exposure may cause skin dryness or cracking. R-67 Vapours may cause drowsiness and dizziness. |