



SAFETY DATA SHEET

SILVER CONDUCTIVE PAINT

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME SILVER CONDUCTIVE PAINT

PRODUCT NO. ESCP03B/ 26G/ 50G

APPLICATION Highly conductive silver loaded paint for track repair and pinpoint shielding

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
info@hkw.co.uk

EMERGENCY TELEPHONE +44(0)1283 222 111 between 8.30 am - 5.00pm Mon - Fri

2 HAZARDS IDENTIFICATION

Highly flammable.

Vapours may cause drowsiness and dizziness.

CLASSIFICATION F;R11. R67.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
1-ETHOXYPROPAN-2-OL	216-374-5	1569-02-4	30-60%	R10 R67
SILVER	231-131-3	7440-22-4	30-60%	-
ETHANOL	200-578-6	64-17-5	10-30%	F;R11
ACETONE	200-662-2	67-64-1	5-10%	F;R11 Xi;R36 R66 R67
ETHYL ACETATE	205-500-4	141-78-6	1-5%	F;R11 Xi;R36 R66 R67
DIBUTYL PHTHALATE: DBP	201-557-4	84-74-2	<0.5%	Repr2;R61 Repr3;R62 N;R50

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

COMPOSITION COMMENTS

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

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Treat symptomatically

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 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.

SILVER CONDUCTIVE PAINT**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**

Use: Alcohol resistant foam. Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

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

Solvent vapours may form explosive mixtures with air. May explode when heated or when exposed to flames or sparks.

6 ACCIDENTAL RELEASE MEASURES**SPILL CLEAN UP 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 oxidisers, heat and flames. Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

STORAGE CLASS

Flammable liquid storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
ACETONE	WEL	500 ppm	1210 mg/m ³	1500 ppm	3620 mg/m ³	
DIBUTYL PHTHALATE: DBP	WEL		5 mg/m ³		10 mg/m ³	
ETHANOL	WEL	1000 ppm	1880 mg/m ³			
ETHYL ACETATE	WEL	200 ppm		400 ppm		
SILVER	WEL		0.1 mg/m ³			

WEL = Workplace Exposure Limit.

PROTECTIVE EQUIPMENT**ENGINEERING MEASURES**

All handling to take place in well-ventilated area.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit. Use respiratory equipment with combination filter, type A2/P2.

HAND PROTECTION

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Nitrile gloves are recommended.

EYE PROTECTION

Wear approved safety goggles.

SILVER CONDUCTIVE PAINT

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	Liquid		
COLOUR	Grey		
ODOUR	Characteristic		
SOLUBILITY	Soluble in water		
BOILING POINT (°C)	56 - 132	RELATIVE DENSITY	1.7 @ 20 °c
VOLATILE BY VOL. (%)	50	FLASH POINT (°C)	12 CC (Closed cup).
AUTO IGNITION TEMPERATURE (°C)	255	FLAMMABILITY LIMIT - LOWER(%)	1.3
FLAMMABILITY LIMIT - UPPER(%)	19	VOLATILE ORGANIC COMPOUND (VOC)	850 g/litre

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

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 CONTACT

Prolonged or repeated exposure may cause severe irritation.

EYE CONTACT

Irritating to eyes.

Other Health Effects

This substance has no evidence of carcinogenic properties.

Name	ETHANOL
Toxic Dose 1 - LD 50	6200-17800 mg/kg (oral rat)
Toxic Dose 2 - LD 50	>20,000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	8000 mg/l/4h (inh-rat)
Name	ACETONE
Toxic Dose 1 - LD 50	5800 mg/kg (oral rat)
Toxic Dose 2 - LD 50	20,000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	76 ppm/4h (inh-rat)
Name	ETHYL ACETATE
Toxic Dose 1 - LD 50	5620 mg/kg (oral rat)
Toxic Dose 2 - LD 50	18,000 mg/kg (oral-rbt)
Toxic Conc. - LC 50	1600 ppm/4h (inh-rat)
Name	DIBUTYL PHTHALATE: DBP
Toxic Dose 1 - LD 50	8000 mg/kg (oral rat)
Toxic Dose 2 - LD 50	3050 mg/kg (ipr-rat)
Toxic Conc. - LC 50	7.9 mg/m3/30h (inh-rat)

12 ECOLOGICAL INFORMATION

SILVER CONDUCTIVE PAINT**ECOTOXICITY**

There are no data on the ecotoxicity of this product. The product is not expected to be hazardous to the environment.

DEGRADABILITY

No data available.

Name	ETHANOL
LC 50, 96 Hrs, FISH mg/l	8140
EC 50, 48 Hrs, DAPHNIA, mg/l	9268
IC 50, 72 Hrs, ALGAE, mg/l	>5000

Name	ACETONE
LC 50, 96 Hrs, FISH mg/l	8300
EC 50, 48 Hrs, DAPHNIA, mg/l	12600

Degradability

The product is easily biodegradable.

Name	ETHYL ACETATE
LC 50, 96 Hrs, FISH mg/l	270
EC 50, 48 Hrs, DAPHNIA, mg/l	2306

13 DISPOSAL CONSIDERATIONS**GENERAL INFORMATION**

Waste is classified as hazardous waste.

DISPOSAL METHODS

Absorb in vermiculite or dry sand, dispose in licensed hazardous waste. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

UK ROAD CLASS	3		
PROPER SHIPPING NAME	PAINT		
UN NO. ROAD	1263	UK ROAD PACK GR.	II
ADR CLASS NO.	3	ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	II	HAZARD No. (ADR)	33
ADR LABEL NO.	3	HAZCHEM CODE	3YE
CEFIC TEC(R) NO.	30GF1-I+II, 30GF1-sp	RID CLASS NO.	3
RID PACK GROUP	II	UN NO. SEA	1263
IMDG CLASS	3	IMDG PAGE NO.	3
IMDG PACK GR.	II	EMS	F-E, S-E
MFAG	See Guide	MARINE POLLUTANT	No.
UN NO. AIR	1263	AIR CLASS	3
AIR PACK GR.	II		

15 REGULATORY INFORMATION**SYMBOLS**

Highly Flammable

RISK PHRASES

R11 Highly flammable.

SILVER CONDUCTIVE PAINT

R67 Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S51 Use only in well-ventilated areas.

UK REGULATORY REFERENCES

The Control of Substances Hazardous to Health Regulations 1988.

Chemicals (Hazard Information & Packaging) Regulations.

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/EC.

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

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.

GUIDANCE NOTES

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

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 NOVEMBER 2008

REV. NO./REPL. SDS 6

GENERATED

SDS NO. 10548

RISK PHRASES IN FULL

R10 Flammable.
R11 Highly flammable.
R36 Irritating to eyes.
R50 Very toxic to aquatic organisms.
R61 May cause harm to the unborn child.
R62 Possible risk of impaired fertility.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

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.