

SAFETY DATA SHEET

SILVER CONDUCTIVE PAINT

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND 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

2 COMPOSITION/INFORMATION ON INGREDIENTS

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

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

3 HAZARDS IDENTIFICATION

Highly flammable. Vapours may cause drowsiness and dizziness.

CLASSIFICATION F;R11. R67.

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 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

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.

SILVER CONDUCTIVE PAINT**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 cool, dry well-ventilated place. Keep in original container.

STORAGE CLASS

Flammable liquid storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
ETHANOL	WEL	1000 ppm	1920 mg/m3		
ACETONE	WEL	500 ppm	1210 mg/m3	1500 ppm	3620 mg/m3
ETHYL ACETATE	WEL	200 ppm		400 ppm	
DIBUTYL PHTHALATE: DBP	WEL		5 mg/m3		10 mg/m3
SILVER	WEL		0.1 mg/m3		

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

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.

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.

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	RELATIVE DENSITY	1.7 @ 20 °c
COLOUR	Grey	AUTO IGNITION TEMPERATURE	255
ODOUR	Characteristic	(°C)	
SOLUBILITY	Soluble in water	FLAMMABILITY LIMIT - UPPER(%)	19
BOILING POINT (°C)	56 - 132		
FLASH POINT (°C)	-19		
FLAMMABILITY LIMIT - LOWER(%)	1.3		

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

SILVER CONDUCTIVE PAINT**11 TOXICOLOGICAL INFORMATION**

Name	ETHANOL
Toxic Dose 1 - LD 50	6200 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)

TOXICOLOGICAL INFORMATION

No data recorded.

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.

12 ECOLOGICAL INFORMATION

Name	ETHANOL
LC 50, 96 Hrs, FISH mg/l	8140
EC 50, 48 Hrs, DAPHNIA, mg/l	9268
Name	ACETONE
LC 50, 96 Hrs, FISH mg/l	8300
EC 50, 48 Hrs, DAPHNIA, mg/l	12600
Name	ETHYL ACETATE
LC 50, 96 Hrs, FISH mg/l	270
EC 50, 48 Hrs, DAPHNIA, mg/l	2306
Name	SILVER

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.

13 DISPOSAL CONSIDERATIONS**GENERAL INFORMATION**

Waste is classified as special waste.

DISPOSAL METHODS

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

14 TRANSPORT INFORMATION

SILVER CONDUCTIVE PAINT

PROPER SHIPPING NAME	PAINT OR PAINT RELATED MATERIAL		
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	ICAO CLASS	3
AIR PACK GR.	II		

15 REGULATORY INFORMATION

LABELLING



Highly Flammable

RISK PHRASES

R11 Highly flammable.
 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/EEC. Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EEC.

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.

16 OTHER INFORMATION

GENERAL INFORMATION

CN No 32089091

REVISION COMMENTS

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

ISSUED BY

Helen O'Reilly

REVISION DATE

SEPTEMBER 2005

REV. NO./REPL. SDS GENERATED 3

SDS NO.

10548

SILVER CONDUCTIVE PAINT

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.