ELECTRICALLY CONDUCTIVE SILVER PLATED COPPER COATING 3800C

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

Product Detail : 3805C+3820C Electrically conductive silver plated copper coating paint

Application of the substance / the preparation: Surface Coating. For industrial and professional use only.

Manufacturer / supplier:

Holland Shielding Systems B.V.
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In an emergency, please contact your local/national poison control center (accessible only to medical personnel).

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008		
Flam. Liq. 2	H225	Highly flammable liquid and vapour.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
STOT SE 3	H336	May cause drowsiness or dizziness

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.	
Hazard pictograms	 GHS02 GHS05 GHS07
Signal Word:	Danger

Hazard-determining components of labelling

Isobutanol
Ethyl Acetate

Hazard Statements	
H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

Precautionary Statements	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Revision date: 15-01-2024

2.3 Other Hazards

Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous Components:

Ethyl Acetate		
CAS No: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46-XXXX	 Flam. Liq. 2, H225  Eye Irrit. 2, H319 STOT SE 3, H336	>10- ≤25%
Xylene (mix)		
CAS No: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-xxxx	 Flam. Liq. 3, H226  Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315	>10- ≤25%
Copper		
CAS No: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42		>10- ≤25%
Butyl ethanoate		
CAS No: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29-XXXX	 Flam. Liq. 3, H226  STOT SE 3, H336	>10- ≤25%
isobutanol		
CAS No: 78-83-1 EINECS: 201-148-0 Reg.nr.: 01-2119484609-23-XXXX	 Flam. Liq. 3, H226  Eye Dam. 1, 318  Skin Irrit. 2, H315 STOT SE 3, H335-H336	>10- ≤25%
ethylbenzene		
CAS No: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	 Flam. Liq. 2, H225  STOT RE 2, H373 Asp. Tox.1, H304  Acute Tox. 4, H332	>2.5-≤10%
methanol		
CAS No: 67-56-1 EINECS: 200-659-6 Reg.nr.: 01-2119433307-44-xxxx	 Flam. Liq. 2, H225  Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331  STOT SE 1, H370	≤1%

Additional Information

For the wording of the listed hazard phrases refer to section 16.

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4 FIRST AID MEASURES

4.1 Description of first aid measures

General information	Immediately remove any clothing soiled by the product.
After inhalation	In case of unconsciousness place patient stably in side position for transportation. Supply fresh air; consult doctor in case of complaints.
After skin contact	Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing. Immediately rinse with water.
After eye contact	Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing	Do not induce vomiting; call for medical help immediately and show safety datasheet or label.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents	Water with full jet

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment:	Put on breathing apparatus

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep receptacles tightly sealed.
Ensure good ventilation/extraction at the workplace.
Prevent formation of aerosols.

Hygiene measures	Wash hands before breaks and at the end of workday.
Information about fire- and explosion protection	Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

	Storage
Requirements to be met by storerooms and receptacles	Store in a cool location.
Information about storage in one common storage facility	Not required.
Further information about storage conditions	Keep receptacle tightly sealed and in a well-ventilated place. Keep away from heat. Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s)

No further relevant information available.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Additional information about design of technical facilities: No further data; see section 7.

Ingredients with limit values that require monitoring at the workplace:

WELs (Workplace Exposure Limits)

CAS No. 141-78-6	Ethyl Acetate		
WEL	Short-term value:	1468 mg/m³, 400 ppm	
	Long-term value:	734 mg/m³, 200 ppm	
CAS No. 1330-20-7	Xylene (mix)		
WEL	Short-term value:	441 mg/m³, 100 ppm	Sk; BMGV
	Long-term value:	220 mg/m³, 50 ppm	
CAS No. 123-86-4	Butyl ethanoate		
WEL	Short-term value:	966 mg/m³, 200 ppm	
	Long-term value:	724 mg/m³, 150 ppm	
CAS No. 78-83-1	Isobutanol		
WEL	Short-term value:	231 mg/m³, 75 ppm	
	Long-term value:	154 mg/m³, 50 ppm	
CAS No. 100-41-4	Ethylbenzene		
WEL	Short-term value:	552 mg/m³, 125 ppm	Sk
	Long-term value:	441 mg/m³, 100 ppm	
CAS No. 67-56-1	Methanol		
WEL	Short-term value:	333 mg/m³, 250 ppm	Sk
	Long-term value:	266 mg/m³, 200 ppm	

DNELs

CAS No. 141-78-6	Ethyl Acetate	
Dermal	DNEL	37 mg/day (Con)
		63 mg/day (Ind)
Inhalative	DNEL	367 mg/m³ (Con)
		734 mg/m³ (Ind)
CAS No. 1330-20-7	Xylene (mix)	
Dermal	DNEL	108 mg/day (Con)
		180 mg/day (Ind)
Inhalative	DNEL	14.8 mg/m³ (Con)
		77 mg/m³ (Ind)
CAS No. 7440-50-8	Copper	
Dermal	DNEL	273 mg/day (Con)
		137 mg/day (Ind)

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Inhalative	DNEL	20 mg/m³ (Con)
		20 mg/m³ (Ind)
CAS No. 123-86-4	Butyl ethanoate	
Oral	DNEL	2 mg/day (Con)
Dermal	DNEL	6 mg/day (Con)
		11 mg/day (Ind)
Inhalative	DNEL	35.7 mg/m³ (Con)
		300 mg/m³ (Ind)
CAS No. 78-83-1	Isobutanol	
Oral	DNEL	25 mg/day (Con)
Inhalative	DNEL	55 mg/m³ (Con)
		310 mg/m³ (Ind)
CAS No. 67-56-1	Methanol	
Oral	DNEL	8 mg/day (Con)
Dermal	DNEL	8 mg/day (Con)
		40 mg/day (Ind)
Inhalative	DNEL	50 mg/m³ (Con)
		260 mg/m³ (Ind)

PNECs

CAS No. 1330-20-7	Xylene mixed isomers	
Fresh water;	PNEC	0.327 mg/l
Marine water;		0.327 mg/l
Intermittent release;		0.327 mg/l
STP (sewage-treatment plant);		6.58 mg/l
Sediment (Freshwater);		12.46 mg/kg
Sediment (Marinewater);		12.46 mg/kg
Soil;		2.31 mg/kg
CAS No. 123-86-4	Butyl Acetate	
Fresh water;	PNEC	0.18 mg/l
Marine water;		0.018 mg/l
Intermittent use/release:		0.36 mg/l
STP (sewage-treatment plant);		35.6 mg/l
Sediment (Freshwater);		0.981 mg/kg
Sediment (Marinewater);		0.0981 mg/kg
Soil;		0.0903 mg/kg

Ingredients with Biological Limit Values:

CAS No. 1330-20-7	Xylene (mix)		
	BMGV	650 mmol/mol	creatinine
		Medium:	urine
		Sampling time:	post shift
		Parameter:	methyl hippuric acid

Additional information

The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment		
General protective and hygienic measures	Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.	
Respiratory protection	When spraying the product, use a respiratory protective device.	
Protection of hands	Protective gloves	
Eye protection	Tightly sealed goggles	

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance	
Form:	Aerosol
Colour:	Silver grey
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	76.8 °C
Flash point:	-4 °C
Flammability (solid, gas):	Highly flammable.
Auto-ignition temperature:	400 °C
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limit (Lower)	1.1 Vol %
Explosion limit (Upper)	12 Vol %
Vapour pressure at 20 °C:	100 hPa
Density at 20 °C:	1.099 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with water:	NOT MISCIBLE
Partition coefficient: n-octanol/water:	Not determined.
Viscosity (Dynamic) @ 20 °C	300 mPas.
Viscosity (Kinematic)	Not determined.
Solvent content:	
Organic solvents:	67.8 %
Water:	0.2%
Solids content:	34.5 %

9.2 Other information

No further relevant information available.

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10 STABILITY AND REACTIVITY

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions
No dangerous reactions known.

10.4 Conditions to avoid
No further relevant information available.

10.5 Incompatible materials
No further relevant information available.

10.6 Hazardous decomposition products
No dangerous decomposition products when stored and handled correctly

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification

CAS No. 141-78-6	Ethyl Acetate		
Oral		LD50	4,934 mg/kg (Rab)
Dermal		LD50	20,000 mg/kg (Rab)
Inhalative		LC50/4 h	1,600 mg/l (Rat)
CAS No. 1330-20-7	Xylene (mix)		
Oral		LD50	5,000 mg/kg (Rat)
Dermal		LD50	2,000 mg/kg (rbt)
Inhalative		LC50/4 h	11 mg/l (Rat)
CAS No. 7440-50-8	copper		
Oral		LD50	>2,000 mg/kg (Rat)
CAS No. 123-86-4	Butyl ethanoate		
Oral		LD50	10,760 mg/kg (rat)
Dermal		LD50	14,112 mg/kg (Rab)
Inhalative		LC50/4 h	23.4 mg/l (Rat)
CAS No. 78-83-1	isobutanol		
Oral		LD50	>2,000 mg/kg (Rat)
Dermal		LD50	>2,000 mg/kg (Rab)
CAS No. 100-41-4	ethylbenzene		
Oral		LD50	3,500 mg/kg (rat)
Dermal		LD50	17,800 mg/kg (rbt)
CAS No. 67-56-1	methanol		
Oral		LD50	100 mg/kg (rat)
Dermal		LD50	300 mg/kg (rat)
Inhalative		LC50/4 h	3 mg/l (rat)

	Primary irritant effect
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.

Additional toxicological information:

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)	
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity

Acute Fish toxicity	
n-Butyl acetate	LC50 18 mg/l
Species:	Pimephales promelas (fathead minnow)
Exposure duration:	96 h
Chronic Fish toxicity	
n-Butyl acetate	No Data Available
Acute toxicity for daphnia	
n-Butyl acetate	EC50 44 mg/l
Species:	Daphnia (water flea)
Exposure duration:	48 h
Chronic toxicity to daphnia	
n-Butyl acetate	NOEC 23 mg/l
Species:	Daphnia magma (water flea)
Exposure duration:	21 d
Method:	OECD Test Guideline 211
Acute toxicity for Algae	
n-Butyl acetate	EC50 675 mg/l
Species:	Scenedesmus quadricauda (Green algae)
Exposure duration:	72 h
Acute bacterial Toxicity	
n-Butyl acetate	EC50 356 mg/l
Species:	Activated sludge
Exposure duration:	40 h

12.2 Persistence and degradability

No further relevant information available.

12.3 Bio accumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Additional ecological information

General notes:	Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or un-neutralised. Danger to drinking water if even small quantities leak into the ground.

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12.5 Results of PBT and vPvB assessment

PBT: Not applicable
vPvB: Not applicable

12.6 Other adverse effects

No further relevant information available.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation	Must not be disposed together with household garbage. Do not allow product to reach sewage system.

	Uncleaned packaging
Recommendation:	Disposal must be made according to official regulations.

14 TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA	UN1263

14.2 UN proper shipping name

ADR	1263 PAINT (vapour pressure at 50°C not more than 110 kPa)
IMDG	Paint
IATA	Paint

14.3 Transport hazard class(es)

ADR, IMDG, IATA	
Class	3
Label	3 Flammable liquids.

14.4 Packing group

ADR, IMDG, IATA	II

14.5 Environmental hazards:

Marine pollutant:	No

14.6 Special precautions for user

Warning:	Flammable liquids.
Hazard identification number (Kemler code):	33
EMS Number:	F-E, S-E
Stowage Code	B

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information

ADR	Limited quantities (LQ)	5L
	Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging	30ml

IMDG	Maximum net quantity per outer packaging	500ml
	Transport category	2
	Tunnel restriction code	D/E
	Limited quantities (LQ)	5L
	Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging	30ml
	Maximum net quantity per outer packaging	500ml
UN "Model Regulation":	UN 1263 PAINT (vapour pressure at 50°c not more than 110 kPa),	3, II

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poisons Act

Regulated explosives precursors	None of the ingredients is listed.
Regulated poisons	None of the ingredients is listed.
Reportable explosives precursors	None of the ingredients is listed.
Reportable poisons	None of the ingredients is listed.
Directive 2012/18/EU	Named dangerous substances - ANNEX I None of the ingredients is listed.
Seveso category	P5c FLAMMABLE LIQUIDS
	Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
	Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
National regulations:	Technical instructions (air): CLASS Share in %
	Wasser 0.2
	I 0.1
	III 14.5
	NK 67.7
Waterhazard class:	Water hazard class 2 (Self-assessment): hazardous for water.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Full text of H-Statements referred to under sections 2 and 3	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.

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Abbreviations and acronyms	
RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO	International Civil Aviation Organisation
ADR	Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
CAS	Chemical Abstracts Service (division of the American Chemical Society)
WEL	Workplace Exposure Limit
DNEL	Derived No-Effect Level (UK REACH)
PNEC	Predicted No-Effect Concentration (UK REACH)
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
Flam. Liq. 2	Flammable liquids – Category 2
Flam. Liq. 3	Flammable liquids – Category 3
Acute Tox. 3	Acute toxicity – Category 3
Acute Tox. 4	Acute toxicity – Category 4
Skin Irrit. 2	Skin corrosion/irritation – Category 2
Eye Dam. 1	Serious eye damage/eye irritation – Category 1
Eye Irrit. 2	Serious eye damage/eye irritation – Category 2
STOT SE 1	Specific target organ toxicity (single exposure) – Category 1
STOT SE 3	Specific target organ toxicity (single exposure) – Category 3
STOT RE 2	Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1	Aspiration hazard – Category 1