

# HIGH TEMPERATURE CONDUCTIVE COATING 3840

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

Product Detail : 3840 - High temperature conductive coating  
 Application of the substance / the preparation: Surface Coating. For industrial and professional use only.  
 Manufacturer / supplier: Holland Shielding Systems B.V.  
 Jacobus Lipsweg 124  
 3316 BP Dordrecht  
 the Netherlands  
 Ph: +31(0)78- 204 90 00  
 Fax: +31(0)78- 204 90 08  
 www.hollandshielding.com  
 info@hollandshielding.com


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.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
STOT RE 2	H373	May cause damage to the hearing organs through prolonged or repeated exposure.

### 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	
Signal Word:	Danger

### Hazard-determining components of labelling

4-methylpentan-2-one  
 butanol  
 Quartz  
 Xylene (mix)

Hazard Statements	
H225	Highly flammable liquid and vapour.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H373	May cause damage to the hearing organs through prolonged or repeated exposure.
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.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

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## 2.3 Other Hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Description: Mixture of substances listed below with nonhazardous additions.		
Dangerous Components:		
CAS No: 108-10-1 EINECS: 204-550-1 Reg.nr.: 01-2119473980-30-XXXX		4-methylpentan-2-one Flam. Liq. 2, H225; >10- ≤25%
		Acute Tox. 4, H332 Eye Irrit. 2, H319
CAS No: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-XXXX		Xylene (mix) Flam. Liq. 3, H226; >10- ≤25%
		Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315
CAS No: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35		ethylbenzene Flam. Liq. 2, H225; >2.5- ≤10%
		STOT RE 2, H373 Asp. Tox. 1, H304
		Acute Tox. 4, H332
CAS No: 68187-54-2 EINECS: 269-105-9 Reg.nr.: 01-2119485493-29-XXXX		Tin antimony grey cassiterite Acute Tox. 4, H302 Acute Tox. 4, H332 >2.5- ≤10%
		butanol Flam. Liq. 3, H226
CAS No: 71-36-3 EINECS: 200-751-6 Reg.nr.: 01-2120758804-45		Eye Dam. 1, H318; >2.5- ≤10%
		Acute Tox. 4, H302 Skin Irrit. 2, H315 STOT SE 3, H335-H336
CAS: 12001-26-2		Mica (pottasium aluminium silicate) >2.5- ≤10%
		substance with a Community workplace exposure limit
CAS: 14808-60-7 EINECS: 238-878-4		Quartz STOT RE 1, H372 >2.5- ≤10%
		2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226 >1- ≤2.5%

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

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures

General information	Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
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After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. 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	CO <sub>2</sub> , 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

During heating or in case of fire poisonous gases are produced.

## 5.3 Advice for firefighters

Protective equipment	Mount respiratory protective device.
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# 6 ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

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. Keep respiratory protective device available.



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## 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.
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## Ingredients with limit values that require monitoring at the workplace: WELs (Workplace Exposure Limits)

CAS No. 108-10-1	4-methylpentan-2-one		
WEL	Short-term value:	416 mg/m <sup>3</sup> , 100 ppm	Sk; BMGV
	Long-term value:	208 mg/m <sup>3</sup> , 50 ppm	
CAS No. 1330-20-7	Xylene (mix)		
WEL	Short-term value:	441 mg/m <sup>3</sup> , 100 ppm	Sk; BMGV
	Long-term value:	220 mg/m <sup>3</sup> , 50 ppm	
CAS No. 100-41-4	Ethylbenzene		
WEL	Short-term value:	552 mg/m <sup>3</sup> , 125 ppm	Sk
	Long-term value:	441 mg/m <sup>3</sup> , 100 ppm	
CAS No. 71-36-3	Butanol		
WEL	Short-term value:	154 mg/m <sup>3</sup> , 50 ppm	Sk
CAS No. 12001-26-2	Mica (potassium aluminium silicate)		
WEL	Long-term value:	10 mg/m <sup>3</sup> (total inhalable)	
		0.8 mg/m <sup>3</sup> (respirable)	
CAS No. 14808-60-7	Quartz		
TWA	Long-term value:	0.1 mg/m <sup>3</sup> , 50	
CAS No. 108-65-6	2-methoxy-1-methylethyl acetate		
WEL	Short-term value:	548 mg/m <sup>3</sup> , 100 ppm	Sk
	Long-term value:	274 mg/m <sup>3</sup> , 50 ppm	

## DNELs

CAS No. 108-10-1	4-methylpentan-2-one		
Oral	DNEL	4.2 mg/day (Con)	
Dermal	DNEL	4.2 mg/day (Con)	
		11.8 mg/day (Ind)	
Inhalative	DNEL	14.7 mg/m <sup>3</sup> (Con)	
		83 mg/m <sup>3</sup> (Ind)	
CAS No. 1330-20-7	Xylene (mix)		
Dermal	DNEL	108 mg/day (Con)	
		108 mg/day (Ind)	
Inhalative	DNEL	14.8 mg/m <sup>3</sup> (Con)	
		77 mg/m <sup>3</sup> (Ind)	
CAS No. 71-36-3	Butanol		

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Oral	DNEL	3,125 mg/day (Con)
Inhalative	DNEL	55 mg/m <sup>3</sup> (Con)
		310 mg/m <sup>3</sup> (Ind)
CAS No. 108-65-6	2-methoxy-1-methylethyl acetate	
Oral	DNEL	1.67 mg/day (Con)
Dermal	DNEL	54.8 mg/day (Con)
		153.5 mg/day (Ind)
Inhalative	DNEL	33 mg/m <sup>3</sup> (Con)
		275 mg/m <sup>3</sup> (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



## Ingredients with Biological Limit Values:

CAS No. 108-10-1	4-methylpentan-2-one		
	BMGV	20 µmol/L	creatinine
		Medium:	urine
		Sampling time:	post shift
		Parameter:	4-methylpentan-2-one
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

General protective and hygienic measures	Personal protective equipment	
	Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the skin. Avoid contact with the eyes and skin.	
	Respiratory protection	Particulate cartridge filter type when LEV cannot be supplied. When spraying the product, use a respiratory protective device.
Protection of hands	Protective gloves. When skin exposure may occur, advice should be sought from the glove supplier on appropriate types and usage times for this product.	 

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Eye protection

Tightly sealed goggles



## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### General Information:

Appearance	
Form	Liquid
Colour	According to product specification
Odour	Characteristic
Odour threshold	Not determined.
pH-value	Not determined.
Change in condition	
Melting point/freezing point	Undetermined.
Initial boiling point and boiling range	114-117 °C
Flash point	16°C
Flammability (solid, gas)	Highly flammable.
Auto-ignition temperature	448 °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)	8 Vol %
Vapour pressure at 20 °C	6.7-8.2 hPa
Density at 20 °C	1.069 g/cm <sup>3</sup>
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)	360 mPas
Viscosity (Kinematic)	Not determined.
Solvent content:	
Organic solvents	42.8 %
Solids content	57.2 %

#### 9.2 Other information

No further relevant information available.

## 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.

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## 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. Harmful if inhaled.

LD/LC50 values relevant for classification:

CAS No. 108-10-1	4-methylpentan-2-one		
Oral		LD50	2,080 mg/kg (rat)
Dermal		LD50	>2,000 mg/kg (Rat)
Inhalative		LC50/4 h	2 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. 100-41-4	ethylbenzene		
Oral		LD50	3,500 mg/kg (rat)
Dermal		LD50	17,800 mg/kg (rbt)
CAS No. 68187-54-2	Tin antimony grey cassiterite		
Oral		LD50	>2,000 mg/kg (rat)
Inhalative		LC50/4 h	>5.07 mg/l (rat)
CAS No. 71-36-3	Butanol		
Oral		LD50	500 mg/kg (Rat)
Dermal		LD50	2,000 mg/kg (Rat)
Inhalative		LC50/4 h	>17.76 mg/l (rat)
CAS No. 108-65-6	2-methoxy-1-methylethyl acetate		
Oral		LD50	>5,000 mg/kg (rat)
Dermal		LD50	5,000 mg/kg (Rat)
Inhalative		LC50/4 h	>10.8 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 (carcinogenicity, 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	Based on available data, the classification criteria are not met.
STOT-repeated exposure	May cause damage to the hearing organs through prolonged or repeated exposure.
Aspiration hazard	Based on available data, the classification criteria are not met.



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## 12 ECOLOGICAL INFORMATION

### 12.1 Toxicity

Aquatic toxicity: No further relevant information available.

### 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.

### 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 packagin

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  
IMDG  
IATA

1263 PAINT (vapour pressure at 50°C not more than 110 kPa)

PAINT RELATED MATERIAL

PAINT RELATED MATERIAL

### 14.3 Transport hazard class(es)

ADR, IMDG, IATA  
  
Class  
Label



3 Flammable liquids

3

### 14.4 Packing group

ADR, IMDG, IATA

II

### 14.5 Environmental hazards:

Marine pollutant

No

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## 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	30 ml
	Maximum net quantity per outer packaging	500 ml
	Transport category	2
	Tunnel restriction code	D/E
IMDG	Limited quantities (LQ)	5L
	Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging	30 ml
	Maximum net quantity per outer packaging	500 ml
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 AEROSOLS 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 % NK 42.8
Water hazard 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.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.

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H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

## 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
TWA	Time weighted average
DNEL:	Derived No-Effect Level
PNEC:	Predicted No-Effect Concentration
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. 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 3:	Specific target organ toxicity (single exposure) – Category 3
STOT RE 1:	Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2:	Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1:	Aspiration hazard – Category 1