

CONDUCTIVE TRANSPARENT PAINT 3821



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

Product Detail : 3821- Conductive transparent paint
Application of the substance / the preparation: Surface Coating
Manufacturer / supplier: Holland Shielding Systems B.V.
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2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification According to directive 67/548/EEC or Directive 1999/45/EC

Main hazards		
		
Xn; Harmful R20/21-48/20-63: Harmful by inhalation and in contact with skin. Harmful: danger of serious damage to health and prolonged exposure through inhalation. Possible risk of harm to the unborn child.	R36-38: Irritating to skin. Risk of serious damage to eyes Xi; Irritant	F; Highly flammable R11: Highly flammable

Information concerning particular hazards for human and environment:
The product has to be labeled due to the calculation of the “General Classification Guideline for the preparations of the EU” in there latest valid version

Classification system

The classification is according to the latest editions of EU-list, and extended by company and literature data.

1330-20-7 Xylene (mix)
108-88-3 Toluene
67-63-0 Propan-2-ol

2.2 Label elements

Labeling according to the EU guidelines
The product has to been classified and marked in accordance with EU Directives/Ordinance on Hazardous Materials

Code letter and hazard designation of the product:

Xn Harmful
F Highly flammable

Hazard-determining components of labelling

Toluene
Xylene (mix)

Risk Phrases

11	Highly flammable
20/21	Harmful by inhalation and in contact with skin
36/38	Irritating to eyes and skin
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
63	Possible risk of harm to unborn child

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Safety Phrases

7/9	Keep container tightly closed and in a well ventilated place
16	Keep away from sources of ignition – no smoking
23	Do not breath fumes/vapour/spray
25	Avoid contact with eyes
36/37	Wear suitable protective clothing and gloves
60	This material and its container must be disposed of as hazardous waste

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: not applicable

vPvB: not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

		Xylene (Mix)			
CAS:1330-20-7 EINECS: 215-535-7		Xn R20/21:		Xi R38	25%-50%
	R10				
		Flame. Liq-uid.3,H226; Irrit.2,H315		Acute Tox.4,H312;Acute Tox .4,H332;Skin	
CAS: 123-42-2 EINECS: 204-626-7		4-hydroxy-4-meth-ylpentan-2-one Xi R36;		Eye irritant.2,H319	10-25%
		Toluene			
CAS108-88-3 EINECS:204-625-9		Xn R48/20-63-65		Xi R38	10-25%
				REPR.CAT 3	
		F R11		Flam.Liq.2,H225;Repr.2, H361d;STOT RE 2,H373; Asp. Tox.1,H304;Skin irritant.2,H315; STOT SE3,H336	
		Propan-2-ol			
CAS:67-63-0 EINECS:200-661-7		Xi R36 ;		F R11	10-25%
		Flam.Liq.2,H225;Eye irrit.2,H319;STOT SE 3,H336			

Additional information: For wording of the listed risk phrases refer to section 16



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4. FIRST AID MEASURES

4.1 Description of first aid measures

General information	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident
After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult a doctor if symptoms persist In case of unconsciousness place patient stably in side position for transportation
After skin Contact	Immediately wash with water and soap rinse thoroughly
After eye Contact	Rinse opened eyes for several minutes under running water. If symptoms persist consult a doctor.
After swallowing	If symptoms persist consult a doctor

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

No further relevant information available

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishable agents

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: water with jet

5.2 Special hazards arising from the substance or mixture

No further relevant information available

5.3 Advice for Fire Fighters

Protective equipment: Mount respirator protective device

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, work pits 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).

Dispose contaminated material as waste according to item 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 receptacle tightly sealed.

Ensure good ventilation/extraction at the workplace.

Prevent formation of aerosols

Information about fire – and explosion protection:

Keep ignition sources away – Do not smoke

Protect against electrostatic charges

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7.2 Precautions for safe storage, including and incompatibilities

Requirements to be met by store rooms 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
 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

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

8.1 Control Parameters

Ingredients with limit values that require monitoring at the workplace	
1330-20-7 Xylene (mix)	
WEL	Short term value: 441 mg/m ³ , 100ppm Long term value: 220 mg/m ³ , 50ppm Sk: BMGV
123-42-2 4-hydroxy-4-methylpentan-2-one	
WEL	Short term value 362mg/ m ³ , :75ppm Long term value: 241 mg/ m ³ ,: 50ppm
108-88-3 toluene	
WEL	Short term value: 384 mg/m ³ , 100ppm Long term value: 191 mg/m ³ , 50ppm SK
67-63-0 propan-2-ol	
WEL	Short term value: 1250 mg/m ³ , 500ppm Long term value: 999mg/m ³ ,400ppm

8.1.2 Ingredients with biological limit values

1130-20-7 Xylene (mix)	
BMGV	650 mmol/mol creatinine Medium Urine Sampling time: post Shift Parameter: methyl hippuric acid

Additional information: the list valid during the making were used as basis

8.2 Exposure Controls

Personal protective equipment:
 General Protective and hygienic measures:
 Keep away from food stuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work
 Avoid contact with skin, Avoid contact with eyes and skin

Respiratory Protection

When spraying the product, us a respiratory protection device.



Protection of hands

The glove material has to be impermeable and resistant to the product/substance the preparation
 Selection of the glove material on consideration of the penetration times rates of diffusion and the degradation.



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Material of Gloves

The selection of suitable gloves does not only depend on the material but also on the further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application

PENETRATION TIME OF GLOVE MATERIAL

The exact break through time has to be found out by the manufacturer of the protective glove and has to be observed.



Eye protection

Tightly sealed goggles

9. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Black
Odor	Characteristic
Odor Threshold	Not determined
pH Value	Not determined
Melting point/Melting range	Undetermined
Boiling point/Boiling point range	82 °C
Flash point	4 °C
Flammability (solid gaseous)	Not applicable
Ignition temperature	425 °C
Decomposition temperature	Not determined
Self-igniting	Product is not self igniting
Danger of Explosion	Product is not explosive, however, formation of explosive air/vapour mixtures are possible
Explosion limits lower	1.1 Vol %
Higher	12 Vol %

Vapor Pressure at 20 °C	43 hPa
Density at 20 °C	0.916 g/cm ³
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not applicable
Solubility in/Miscibility with water	NOT MISCIBLE
Partition coefficient (n-octanol/water)	Not determined
Viscosity: Dynamic	100mPas
Kinematic	Not determined
Solvent content	
Organic solvents	57.3%
Solids content	25.6%

9.2 Other Information

Other information	No further information available
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10. STABILITY AND REACTIVITY

10.2 Chemical Stability

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

10.3 Possibility of Hazardous reactions

No dangerous reactions known

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10.4 Conditions to be avoided

No further relevant information available

10.5 Incompatible materials

No further relevant information available

10.6 Hazardous Decomposition Products

No dangerous decomposition products known

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 Values relevant for classification

1330-20-7 Xylene (mix)

Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalation	LC50/4 h	6350 mg/l (rat)

108-88-3 toluene

Oral	LD50	5000mg/kg (rat)
Dermal	LD50	12124mg/kg (rab)
Inhalation	LD50/4h	5320mg/l (mus)

Primary irritant effect

On the skin: irritant to skin and mucous membranes

On the eye: irritating effect

Sensitization: no sensitization effects known

Additional toxicological information

The product shows the following dangers according to the calculation method of the general EU classification guidelines for preparations as issued in the latest version.

Harmful

Irritant

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: no further information available

12.2 Persistence and dependability

No further relevant information is available

12.3 Bioaccumulative potential

No further relevant information is available

12.4 Mobility in soil

No further information available

Additional ecological information

Water hazard class 2 (German regulation)(self assessment):hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak in to the ground

12.5 Results of PBT and vPvB

PBT: not applicable

vPvB: not applicable

12.6 Other adverse effects

No further relevant information available



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13. DISPOSAL CONSIDERATIONS

13.1 waste treatment methods

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

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

14.4 Packing Group

ADR,IMDG,IATA II

14.5 Environmental hazard

Marine pollutant: No

14.6 special precautions for user

Warning: flammable liquids.

Danger code (Kemler) 33
EMS Number F-E,S-E

14.7 Transport Information

Transport in bulk according to Annex II Not applicable

Of MARPOL73/78 and the IBC Code

Transports additional information:

ADR

Limited Quantities (LQ) 5L
Excepted quantities Code: E2
Maximum net quantity per inner packaging: 30ml
Maximum net quantity per inner packaging :500 ml

Transport category 2
Tunnel restriction code D/E

IM DG 1L
Limited Quantities (LQ) Code: E2
Excepted quantities Maximum net quantity per inner packaging: 30ml
Maximum net quantity per inner packaging :500 ml

15. REGULATORY INFORMATION

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

National regulations:

Technical instructions

Technical Instructions (air)

Class	Share in %
NK	57.3

Water hazard class: water hazard class 2 (self assessment): hazardous for water.

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15.2 chemical safety assessment

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.

Other Information

Relevant phrases

R10	Flammable
R11	Highly flammable
R20/21	Harmful By inhalation and in contact with skin
R36	Irritating to eyes
R38	Irritating to skin
R63	Possible risk of harm to the unborn child
R65	Harmful may cause lung damage if swallowed
R67	Vapours may cause drowsiness and dizziness
H225	Highly flammable liquid vapour
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airway
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H361d	Suspected of damaging the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

Departments issuing MSDS: product safety department: laboratory Contact: health and safety

Further Information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information related only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.