

MATERIAL SAFETY DATA SHEET

330 0500

Flortex PU Twin Pack Gloss – Hardener



"maintenance made easy"

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY

Product Name: **Flortex PU Twin Pack Gloss – Hardener**
 Company Name: Polycote UK
 Centre Point • Wolsley Road
 Woburn Road Industrial Estate
 Kempston • Beds MK42 7EF
 Telephone Number: 01234 846400

SECTION 2: HAZARDS IDENTIFICATION**Classification under CLP:**

Eye Dam. 1: H318; Acute Tox. 4: H332; Aquatic Chronic 3: H412; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT SE 3: H335; -: EUH204

Most Important**Adverse Effects:**

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. Harmful to aquatic life with long lasting effects. Contains isocyanates. May produce an allergic reaction. contact.

Hazard pictograms:**Signal word:**

Danger

Hazard Statements:

H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H318: Causes serious eye damage.
 H332: Harmful if inhaled.
 H335: May cause respiratory irritation.
 H412: Harmful to aquatic life with long lasting effects.
 EUH204: Contains isocyanates. May produce an allergic reaction.

Precautionary statements:

P261: Avoid breathing vapours.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
 P502: Refer to manufacturer or supplier for information on recovery or recycling. P312: Call a POISON CENTRE/doctor if you feel unwell.
 P321: Specific treatment (see on this label).
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P370+P378: In case of fire: Use to extinguish.
 P403+P235: Store in a well-ventilated place. Keep cool.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**Chemical Name:**

EINECS	CAS No:	Classification	%
<i>HEXAMETHYLENE-1,6-DIISOCYANATE HOMOPOLYMER - REACH registered number(s): 01-2119485796-17-000</i>			
931-274-8	28182-81-2	STOT SE 3: H335; Acute Tox. 4: H332; Skin Sens. 1: H317	>90%
<i>POLYOXYETHYLENE TRIDECYL ETHER PHOSPHATE</i>			
-	9046-01-9	Skin Irrit. 2: H315; Eye Dam. 1: H318; Aquatic Chronic 2: H411	3-5%
<i>ETHYLDIISOPROPYLAMINE - REACH registered number(s): 01-2119973181-39-0000</i>			
230-392-0	7087-68-5	Flam. Liq. 2: H225; Acute Tox. 3: H331; Acute Tox. 4: H302; Eye Dam. 1: H318; STOT SE 3: H335	1-3%
<i>PHOSPHORIC ACID, BUTYL ESTER - REACH registered number(s): 01-2119970716-27-0000</i>			
235-826-2	12788-93-1	Skin Corr. 1B: H314	1-3%
<i>HEXAMETHYLENE-DI-ISOCYANATE - REACH registered number(s): 01-2119457571-37-0000</i>			
212-485-8	822-06-0	Acute Tox. 3: H331; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317	<1%

SECTION 4: FIRST AID MEASURES

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Transfer to hospital if there are burns or symptoms of poisoning.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Transfer to hospital as soon as possible.

Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact. There may be redness or whiteness of the skin in the area of exposure. Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting and diarrhoea. Blood may be vomited. Headaches or general malaise may result. Corrosive burns may appear around the lips.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed/ immediate effects: Immediate effects can be expected after short-term exposure.

Immediate/ special treatment: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Eye bathing equipment should be available on the premises.

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SECTION 5: FIRE FIGHTING MEASURES

- Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide. Dry chemical powder. Do not use water.
- Exposure hazards: In combustion emits toxic fumes.
- Advice for firefighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details. Remove all incompatible materials as outlined in section 10 of SDS.
- Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.
- Methods for cleaning up: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

SECTION 7: HANDLING AND STORAGE

- Handling: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air. Ensure there is exhaust ventilation of the area.
- Storage: Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.
- Suitable packaging: Must only be kept in original packaging.
- Specific end use(s): PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers.

SECTION 8: EXPOSURE CONTROLS**Exposure limit values:**

2-methoxy-1-methylethyl acetate (1-Methoxypropylacetate)			
WEL 8-hr limit ppm:	50	WEL 8-hr limit mg/m ³ :	274
WEL 15 min limit ppm:	100	WEL 15 min limit mg/m ³ :	548
WEL 8-hr limit mg/m ³ total	–	WEL 15 min limit mg/m ³ total	–
inhalable dust:		inhalable dust:	
WEL 8-hr limit mg/m ³ total	–	WEL 15 min limit mg/m ³ total	–
inhalable dust:		inhalable dust:	
Ethylbenzene			
WEL 8-hr limit ppm:	100	WEL 8-hr limit mg/m ³ :	441
WEL 15 min limit ppm:	125	WEL 15 min limit mg/m ³ :	552
Hexamethylene-di-isocyanate			
WEL 8-hr limit ppm:	–	WEL 8-hr limit mg/m ³ :	0.02
WEL 15 min limit ppm:	–	WEL 15 min limit mg/m ³ :	–
Xylene (Xylene, o-,m-,p-or mixed isomers)			
WEL 8-hr limit ppm:	50	WEL 8-hr limit mg/m ³ :	220
WEL 15 min limit ppm:	100	WEL 15 min limit mg/m ³ :	441

Exposure controls:



- Engineering measures: Ensure adequate ventilation of the working area.
- Eye/face protection: Wear eye/face protection.
- Skin/Hand protection: Wear suitable gloves.
- Skin protection (other): Wear suitable protective clothing.

HEXAMETHYLENE-DI-ISOCYANATE

Workplace exposure limits:		Respirable dust:		
State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.02 mg/m ³	0.07 mg/m ³	–	–

DNEL/PNEC Values;

Type	Exposure	Value	Effect
DNEL	Inhalation (Acute)	0.5 mg/m ³	Local
DNEL	Inhalation (Chronic)	1 mg/m ³	Local
PNEC	Fresh water	0.127 mg/L	–
PNEC	Marine water	0.013 mg/L	–
PNEC	Fresh water sediments	266 701 mg/kg	–
PNEC	Marine sediments	26 670 mg/kg	–
PNEC	Soil (agricultural)	53 183 mg/kg soi	–
ETHYLDIISOPROPYLAMINE			
DNEL	Inhalation (repeated dose)	4.2 mg/m ³	Systemic
DNEL	Inhalation	12.6 mg/m ³	Systemic
DNEL	Inhalation (repeated dose)	4.2 mg/m ³	Local
DNEL	Inhalation	12.6 mg/m ³	Local
DNEL	Dermal (repeated dose)	2.96 mg/kg bw/day	Systemic
DNEL	Inhalation (repeated dose)	0.5 mg/m ³	Systemic
DNEL	Inhalation (repeated dose)	0.5 mg/m ³	Local
DNEL	Oral (repeated dose)	1.05 mg/kg bw/day	Systemic
PNEC	Fresh water	0.173 mg/L	–
PNEC	Marine water	0.017 mg/L	–
PNEC	Fresh water sediments	41.09 mg/kg	–
PNEC	Marine sediments	4.11 mg/kg	–
PNEC	Soil (agricultural)	8.12 mg/kg soil dw	–
PHOSPHORIC ACID, BUTYL ESTER			
DNEL	Inhalation (repeated dose)	35.3 mg/m ³	Systemic
DNEL	Inhalation	872.4 mg/m ³	Systemic
DNEL	Dermal (repeated dose)	10 mg/kg bw/day	Systemic
DNEL	Dermal	123.7 mg/kg bw/day	Systemic
DNEL	Inhalation (repeated dose)	8.7 mg/m ³	Systemic
DNEL	Inhalation	215.1 mg/m ³	Systemic
DNEL	Dermal (repeated dose)	5 mg/kg bw/day	Systemic
DNEL	Dermal	61.9 mg/kg bw/day	Systemic
DNEL	Oral (repeated dose)	5.0 mg/kg bw/day	Systemic
DNEL	Oral	61.9 mg/kg bw/day	Systemic
PNEC	Fresh water	100 µg/L	–
PNEC	Marine water	10 µg/L	–
PNEC	Fresh water sediments	392 µg/kg sediment	–
PNEC	Marine sediments	39.2 µg/kg sediment	–
PNEC	Soil (agricultural)	19.7 µg/kg soil dw	–
PNEC	Food chain	4 mg/kg food	–
HEXAMETHYLENE-DI-ISOCYANATE			
DNEL	Inhalation (repeated dose)	0.035 mg/m ³	Local
DNEL	Inhalation	0.07 mg/m ³	Local
DNEL	Inhalation (repeated dose)	0.035 mg/m ³	Systemic
DNEL	Inhalation	0.07 mg/m ³	Systemic
PNEC	Fresh water	0.0774 mg/L	–
PNEC	Marine water	0.000774 mg/L	–

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Exposure Controls:**Engineering**

Measures: Ensure there is sufficient ventilation of the area. Ensure there is exhaust ventilation of the area. Ensure all engineering measures mentioned in section 7 of SDS are in place.

Respiratory

Protection: Self-contained breathing apparatus must be available in case of emergency.

Hand

Protection: Protective gloves. Gloves (alkali-resistant). Breakthrough time of the glove material > 2 hours. BS EN 374:2003 / EN ISO 374-1:2016

Eye Protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin Protection: Protective clothing.

Environmental: Refer to specific Member State legislation for requirements under Community environmental legislation.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

State: Liquid
Colour: Pale Yellow
Odour: Characteristic Odour
Flash point: >106
Viscosity: Viscous
Kinematic Viscosity: 1800
Viscosity test method: Kinematic viscosity in 10-6 m²/s at 40°C (ISO 3104/3105)
Relative Density: 1.145 g/ml

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable under recommended transport or storage conditions.
Chemical stability: Stable under normal conditions.
Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.
Conditions to avoid: Heat.
Materials to avoid: Strong oxidising agents. Strong acids.
Haz. decomp. products: In combustion emits toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION**Toxicity values:**

Route	Species	Test	Value	Units
DERMAL	RAT	LD50(ATE)	>2000	mg/kg
ORAL	RAT	LD50 (ATE)	1870	mg/kg
VAPOURS	RAT	4H LC50 (ATE)	10.65	mg/l

Hazardous Ingredients:**HEXAMETHYLENE-1,6-DIISOCYANATE HOMOPOLYMER**

DERMAL	RAT	LD50	> 2000	mg/kg
DERMAL	RBT	LD50	> 2000	mg/kg
ORAL	RAT	LD50	> 2500	mg/kg

ETHYLDIISOPROPYLAMINE

DUST/MIST	RAT	4H LC50	2.46	mg/l
ORAL	RAT	LD50	317	mg/kg

HEXAMETHYLENE-DI-ISOCYANATE

IVN	MUS	LD50	5600	µg/kg
ORL	MUS	LD50	350	mg/kg
ORL	RAT	LD50	710	µl/kg

Relevant hazard for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	INH	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
STOT-single exposure	INH	Hazardous: calculated

Symptoms/route of exposure:

Skin contact: There may be irritation and redness at the site of contact. There may be redness or whiteness of the skin in the area of exposure. Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting and diarrhoea. Blood may be vomited. Headaches or general malaise may result. Corrosive burns may appear around the lips.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed/immediate effects:

Immediate effects can be expected after short-term exposure.

SECTION 12: ECOLOGICAL INFORMATION**Hazardous ingredients:****HEXAMETHYLENE-1,6-DIISOCYANATE HOMOPOLYMER**

Danio rerio (zebra fish)	96H	LC5022	mg/l
Daphnia magna	48H	EC50> 100	mg/l
Scenedesmus Subspicatus	72H	ErC50> 77.4	mg/l

POLYOXYETHYLENE TRIDECYL ETHER PHOSPHATE

Daphnia magna	48H	EC5010	mg/l
ETHYLDIISOPROPYLAMINE			
Daphnia magna	48H	EC5028.2	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	72H	ErC50150	mg/l
ZEBRAFISH (Brachydanio rerio)	96H	LC5069.7	mg/l

Persistence & Degradability: Biodegradable.

Bioaccumulative Detail: No bioaccumulation potential.

Mobility: Readily absorbed into soil.

Other adverse effects: Harmful to aquatic organisms. Harmful to soil organisms.

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SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods:

Dispose in accordance with applicable international, national and local laws, ordinances and statutes.

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

After final product withdrawal, all residues must be removed from containers (drip-free, powder-free or paste-free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. Containers must be recycled in compliance with national legislation and environmental regulations.

Recovery Operations: Not applicable

Waste Code Number: 08 02 99

Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

The information above is based on our present knowledge and is believed to be correct but does not purport to be all inclusive and should only be used as a guide. No warranty is implied with respect to the specification of the product. It is intended to describe the product solely in terms of its safety requirements and relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process. This data does not constitute the user's own assessment of workplace risk as required by other Health and Safety legislation, nor is it a sales specification or indication of suitability for any particular use. The user must satisfy himself as to the suitability of the product for his purpose. No legally valid contractual relationship is established by the above data, and Polycote UK shall not be held liable for any damage resulting from handling or from contact with the above product.

Date of Issue: September 2019

SECTION 14: TRANSPORT INFORMATION

This product does not require a classification for transport.

SECTION 15: REGULATORY INFORMATION

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

* indicates text in the SDS which has changed since the last revision."

Hazard statements

used in s.2&.3: EUH204: Contains isocyanates. May produce an allergic reaction.

H225: Highly flammable liquid and vapour.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H332: Harmful if inhaled.

All the foregoing information should be regarded as being applicable to the uncured mixed product as well as to the individual components.

This material may form part of a multi component pack, and is supplied in the correct proportions for that pack. Please check all of the product labels to ensure that the correct components and pack sizes are being used. Select and use appropriate pack sizes to minimise waste and operator exposure, do not split packs. Use in batch order.

The Safety Data above is applicable to the product only as used according to the purposes and methods described on the relevant Technical Data Sheet, available from Polycote UK on request.