Part No:
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SAFETY DATA SHEET
1 PACK POLYURETHANE (General colours)

This Safety Data Sheet is prepared in accordance with Annex II to Regulation (EC) No 1907/2006 as amended by Regulations (EU) No. 453/2010 and (EU) 2015/830

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name 1 PACK POLYURETHANE (General colours)

Product number 1P/GENERAL

Product SUMI code F

Product SUMI version number 1.00

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses An air-drying, liquid, solvent-borne paint for industrial and professional use. For metal finishing, vehicle refinishing and the original coating of vehicles or trailers, the product is applied by manual spray, brush and roller. This product may be force dried (50-100ºC).

1.3. Details of the supplier of the safety data sheet

Supplier

Manor Coating Systems Ltd
Otley Road
Shipley
West Yorkshire
BD17 7DP

Tel: 01274 587351
Fax: 01274531360
chiefchemist@manorcoatingsystems.co.uk

Contact person Chief Chemist

1.4. Emergency telephone number

Emergency telephone Manor Coating Systems Ltd. 01274 587351 may be contacted (Office hours only)

National emergency telephone number Members of the public should contact: 111 in UK, 01 809 2166 in Republic of Ireland

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards STOT SE 3 - H336

Environmental hazards Not Classified

2.2. Label elements

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Pictogram



Signal word	Warning
Hazard statements	H226 Flammable liquid and vapour. H336 May cause drowsiness or dizziness. EUH208 Contains BUTANONE OXIME, FATTY ACIDS C6 -19-BRANCHED, COBALT (2+) SALTS. May produce an allergic reaction.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing vapour/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P284 [In case of inadequate ventilation] wear respiratory protection. P302/P352 IF ON SKIN: Wash with plenty of soap and water. Do not use solvent thinners or white spirit. P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking. EUH210 Safety data sheet available on request. RCH002b For professional users only.
Contains	HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics
Supplementary precautionary statements	P240 Ground/ bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P271 Use only outdoors or in a well-ventilated area. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/ doctor if you feel unwell. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
Labelling notes	For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics **25-50%**

CAS number: 64742-48-9 EC number: 919-857-5 REACH registration number: 01-2119463258-33-0000

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H336
Asp. Tox. 1 - H304

XYLENE **1-5%**

CAS number: 1330-20-7 EC number: 215-535-7 REACH registration number: 01-2119488216-32-0000

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
STOT SE 3 - H335
STOT RE 2 - H373
Asp. Tox. 1 - H304

BUTANONE OXIME **0.1 - >1%**

CAS number: 96-29-7 EC number: 202-496-6 REACH registration number: 01-2119539477-28-0000

Classification
Acute Tox. 4 - H312
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Carc. 2 - H351

2-ETHYL-HEXANOIC ACID, ZIRCONIUM SALT **0.1 - <1%**

CAS number: 22464-99-9 EC number: 245-018-1 REACH registration number: 01-2119979088-21-0000

Classification
Repr. 2 - H361

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FATTY ACIDS C6 -19-BRANCHED, COBALT (2+) SALTS	0.1 - <1%
CAS number: 68409-81-4	EC number: 270-066-5

Classification
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Repr. 2 - H361f
Aquatic Chronic 2 - H411

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

Ingredient notes Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No. 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.
If unconscious place in recovery position and seek medical advice.

Inhalation Remove to fresh air, keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.

Ingestion If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.
Keep at rest. Do NOT induce vomiting.

Skin contact Remove contaminated clothing.
Wash skin thoroughly with soap and water or use recognised skin cleanser.
Do NOT use solvents or thinners.

Eye contact Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Ingestion Ingestion may cause nausea, diarrhoea and vomiting.

Skin contact Prolonged or repeated contact with skin may cause soreness, irritation or dry skin due to a defatting action.

Eye contact The liquid splashed in the eyes may cause irritation and reversible damage.

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media recommended: alcohol resistant foam, CO2, powders, water spray/mist

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

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5.2. Special hazards arising from the substance or mixture

Specific hazards Fire will produce dense black smoke.
Exposure to decomposition products may cause a health hazard.
Appropriate breathing apparatus may be required.

Hazardous combustion products Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting Cool closed containers exposed to fire with water.
Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Exclude sources of ignition and ventilate the area.
Avoid breathing vapours.
Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions Do not allow to enter drains or watercourses.
If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent - avoid use of solvents.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions

The Manual Handling Operations Regulations may apply to the handling of containers of this product. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in Section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
Electrical equipment should be protected to the appropriate standard.
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.
Operators should wear anti-static footwear and clothing and floors should be of the conducting type.
Isolate from sources of heat, sparks and open flame.
Non-sparking tools should be used.
Avoid skin and eye contact.
Avoid the inhalation of dust, particulates and spray mist arising from the application of this mixture.
Avoid inhalation of dust from sanding.
Smoking, eating and drinking should be prohibited in application area.
For personal protection see Section 8.
Never use pressure to empty: container is not a pressure vessel.
Always keep in containers of same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or water courses. Wash hands before eating and before leaving the site.
Remove contaminated clothing and protective equipment before entering eating areas.
Information on fire and explosion protection.
Vapours are heavier than air and may spread along floors.
Vapours may form explosive mixtures with air. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials, preferably soaked with water, should be stored in purpose-built containers or in metal containers with tight-fitting self-closing lids.
Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in accordance with the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). The requirements are given in the HSE Approved Code of Practice and Guidance, Storage of Dangerous Substances: DSEAR.
The principles contained in the HSE guidance note Chemical Warehousing: The Storage of Packaged Dangerous Substances, should be observed when storing this product. Notes on joint storage.
Store away from oxidising agents, from strongly alkaline and strongly acid materials as well of amines, alcohols and water. Additional information on storage conditions
Observe label precautions.
Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat and direct sunlight.
Keep container tightly closed.
Keep away from sources of ignition.
No smoking.
Prevent unauthorised access.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Long-term exposure limit (8-hour TWA): SUP 150 ppm 1000 mg/m³

XYLENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 220 mg/m³
Short-term exposure limit (15-minute): WEL 100 ppm 441 mg/m³
Sk

BUTANONE OXIME

Long-term exposure limit (8-hour TWA): SUP 10 ppm
Sen

2-ETHYL-HEXANOIC ACID, ZIRCONIUM SALT

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³
as Zr
Short-term exposure limit (15-minute): WEL 10 mg/m³
as Zr

FATTY ACIDS C6 -19-BRANCHED, COBALT (2+) SALTS

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m3(Sen)
as Co

WEL = Workplace Exposure Limit
Sen = Capable of causing occupational asthma.
Sk = Can be absorbed through the skin.

Ingredient comments According to EH40 - List of approved workplace exposure limits. For dust the 8 hour TWA's are:-
Respirable dust 4 mg/cu.m (WEL)
Total inhalable dust 10 mg/cu.m (WEL)

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics (CAS: 64742-48-9)

DNEL
Professional - Dermal; Long term : 208 mg/kg/day
Professional - Inhalation; Long term : 871 (8 hr) mg/m³
Consumer - Dermal; Long term : 125 mg/kg/day
Consumer - Inhalation; Long term : 185 mg/m³
Consumer - Oral; Long term : 125 mg/kg/day

XYLENE (CAS: 1330-20-7)

Biological limit values 650 mmol methyl hippuric acid/mol creatinine in urine. Post shift sampling

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DNEL

Industry - Inhalation; Short term systemic effects: 289 mg/m³
Industry - Inhalation; Long term systemic effects: 77 mg/m³
Industry - Inhalation; Short term local effects: 289 mg/m³
Industry - Inhalation; Long term local effects: 77 mg/m³
Industry - Dermal; Short term systemic effects: 174 mg/m³
Consumer - Inhalation; Long term systemic effects: 14.8 mg/m³
Consumer - Inhalation; Short term local effects: 174 mg/m³
Consumer - Inhalation; Short term systemic effects: 174 mg/m³
Consumer - Dermal; Long term systemic effects: 108 mg/kg/day
Consumer - Oral; Long term systemic effects: 1.6 mg/kg/day

PNEC

- Fresh water; 0.327 mg/l
- Marine water; 0.327 mg/l
- Intermittent release; 0.327 mg/l
- Sediment (Freshwater); 12.46 mg/kg
- Sediment (Marinewater); 12.46 mg/kg
- Soil; 2.31 mg/kg
- STP; 6.58 mg/l

BUTANONE OXIME (CAS: 96-29-7)

DNEL

Industry - Inhalation; Long term systemic effects: 9 mg/m³
Industry - Inhalation; Long term local effects: 3.3
Industry - Dermal; Long term systemic effects: 1.3 mg/kg/day
Industry - Dermal; Short term systemic effects: 2.5 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 2.7 mg/m³
Consumer - Inhalation; Long term local effects: 2 mg/m³
Consumer - Dermal; Long term systemic effects: 0.78 mg/kg/day
Consumer - Dermal; Short term systemic effects: 1.5

PNEC

- Fresh water; 0.256 mg/l
- Intermittent release; 0.118 mg/l
- STP; 177 mg/l

HYDROCARBONS, C10 - C13, n-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS (CAS: 64742-48-9)

DNEL

No data available.

PNEC

No data available.

2-ETHYL-HEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)

DNEL

Industry - Inhalation; Long term systemic effects: 5 mg/m³
Industry - Dermal; Long term systemic effects: 15.75 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 2.5 mg/m³
Consumer - Dermal; Long term systemic effects: 7.9 mg/kg/day
Consumer - Oral; Long term systemic effects: 7.9 mg/kg/day

PNEC

- Fresh water; 0.36 mg/l
- Marine water; 0.036 mg/l
- Intermittent release; 0.493 mg/l
- STP; 71.7 mg/l
- Sediment (Freshwater); 6.37 mg/kg
- Sediment (Marinewater); 0.637 mg/kg
- Soil; 1.06 mg/kg

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FATTY ACIDS C6 -19-BRANCHED, COBALT (2+) SALTS (CAS: 68409-81-4)

DNEL	No data available.
PNEC	No data available.

8.2. Exposure controls

Protective equipment



Safe use of mixture	This Safety Data Sheet should be read in conjunction with the Safe Use of Mixture (SUMI) report referred to in Section 1. The SUMI provides information collated from exposure scenarios of substances relevant to this product and is provided as part of our obligations under REACH Regulations.
Two-pack product protection	Not applicable
Appropriate engineering controls	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of solvent vapour below the OEL, suitable respiratory protection must be worn. Dry sanding, flame cutting and/or welding of the dry paint film may give rise to dust and/or hazardous fumes. Wet sanding should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used. See Respiratory Equipment below.
Personal protection	Requirements for personal protection can only be determined by performing a risk assessment on a case-by-case basis prior to use. This risk assessment should be reviewed regularly.
Eye/face protection	Use safety eyewear, manufactured/tested to EN 166, and designed to protect against splash of liquids.
Hand protection	Wear chemical resistant gloves classified under "Standard EN374: Protective gloves against chemicals and micro-organisms" made from PE, PVA or Viton gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact. Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.
Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not eat, drink or smoke when using this product.

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Respiratory protection	Selection of any respiratory protective equipment should ensure that it is adequate to reduce exposure to protect the worker's health and is suitable for the wearer, task and environment, including consideration of the facial features of the wearer. * Spraying should be undertaken outdoor or in a vented booth. As a minimum, workers should wear a full face respirator to EN140, fitted with a filter suitable for both particulates and vapours, to EN14387, with an assigned protection factor 20 (e.g. A2/P3). A powered full face respirator with combined filter A2/P3 (APF 40) or compressed air breathing apparatus should be worn if used continuously more than 1 hour. Respirators must be worn by anyone in the booth or room during spraying, gun cleaning (spray-to-dry) and throughout the clearance time, until such time as the particulates and solvent vapour concentration have fallen below the appropriate occupational exposure limits. * Brush or roller applications should be carried out outdoor or in good ventilation areas with 10 to 15 air changes per hour or more. As a minimum, a half face mask respirator with combined filter A2/P3 (APF 20) should be worn. A powered full face respirator with combined filter A2/P3 (APF 40) should be used, if used for more than 1 hour continuously as half face powered respirator are not recommended. * For other operations: If workers could be exposed to concentration above the exposure limit or where ventilation is poor, they must use a respirator to EN 140, fitted with a filter suitable for both particulates and vapours, to EN 14387, with an assigned protection factor of at least 10 (e.g. A2/P3). * Enclosed spaces with little or no ventilation: compressed air breathing apparatus should always be worn. . Respiratory protection should not be removed until the particulate and solvent vapour concentrations have fallen below the occupational exposure limits or the operator has entered a clean air area. Fit testing and regular servicing is recommended for all respiratory protective equipment. The use of HSE website is strongly recommended in selecting the most appropriate RPE http://www.healthyworkinglives.com/rpe-selector
Environmental exposure controls	Do not allow to enter drains or water courses.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Various
Odour	Naphthenic
Odour threshold	Not determined.
pH	Not determined.
Melting point	<-20°C Data shown for Naphtha (Petroleum), Hydrotreated Heavy
Initial boiling point and range	145 - 200°C @ 760 mm Hg
Flash point	38 - 40°C SCC (Setaflash closed cup).
Evaporation rate	0.11 Data shown for Naphtha (Petroleum), Hydrotreated Heavy
Flammability (solid, gas)	Material is not a solid or gas
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 0.6 % Upper flammable/explosive limit: 8 %
Vapour pressure	0.21 kPa @ °C
Vapour density	Heavier than air

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Relative density	0.9 - 1.2 @ 20°C
Solubility(ies)	Immiscible with water.
Partition coefficient	Not determined.
Auto-ignition temperature	230 - 270°C
Decomposition Temperature	Not determined.
Viscosity	3.5 - 4.5 poise Rotothinner 20 @ °C
Explosive properties	The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.
Oxidising properties	The product is not expected to be oxidising

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 390 - 420 g/litre. This product contains a maximum VOC content of 35 - 41 g/100 g.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under recommended storage and handling conditions (see section 7). When exposed to high temperatures may produce hazardous decomposition products.

10.2. Chemical stability

Stability	Stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Keep away from oxidising agents, strongly alkaline and strongly acid materials

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. When exposed to high temperatures may produce hazardous decomposition products.

10.5. Incompatible materials

Materials to avoid	Keep away from oxidising agents, strongly alkaline and strongly acid materials

10.6. Hazardous decomposition products

Hazardous decomposition products	such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (gases ppm)	303,598.4
ATE inhalation (vapours mg/l)	1,250.64
ATE inhalation (dusts/mists mg/l)	453.13

Skin corrosion/irritation

Skin corrosion/irritation	Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation

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Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Contains FATTY ACIDS C6 -19-BRANCHED, COBALT (2+) SALTS and 2-BUTANONE OXIME. May produce an allergic reaction

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Vapours may cause drowsiness and dizziness.

Target organs Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information There are no data available on the mixture itself. The mixture has been assessed following the method according to the "Classification, labelling and packaging of substances and mixtures" EC 1272/2008 and ensuing amendments and classified for toxicological hazards accordingly. See sections 2 and 3 for details.

Inhalation Exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Ingestion Ingestion may cause nausea, diarrhoea and vomiting.

Skin contact Acts as a defatting agent on skin. May cause cracking of skin, and eczema. The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals after repeated contact.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. The liquid splashed in the eyes may cause irritation and reversible damage.

Route of entry This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Medical symptoms Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin.

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Medical considerations This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Toxicological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	5,000.0
Species	Rabbit
ATE dermal (mg/kg)	5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	4.95
Species	Rabbit

Skin corrosion/irritation

Animal data	Prolonged skin contact may defat the skin and produce dermatitis.

Serious eye damage/irritation

Serious eye damage/irritation	Slightly irritating.

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Ames test: Negative. Chromosome aberration: Negative. Gene mutation: Negative.
Genotoxicity - in vivo	Micronucleus test: Negative.

Carcinogenicity

Carcinogenicity	Not expected to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility	By analogy with comparable product: Animal testing did not show any effects on fertility Parental Toxicity - LOAEL 1500 mg/kg/day, , Fertility - NOAEL 1500 mg/kg/day, Oral, Rat
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 5.22 mg/l, , Maternal toxicity: - NOAEL: >=5.22 mg/l, Inhalation, Rat

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Specific target organ toxicity - single exposure

STOT - single exposure	Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
Target organs	Central nervous system Kidneys

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	By analogy with comparable product: Based on available data , the classification criteria are not met. NOAEL >=11.6 mg/l, Inhalation, Rat

Aspiration hazard

Aspiration hazard	If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours)

Inhalation	Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Ingestion	If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours)
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.

XYLENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	3,523.0
Species	Rat
ATE oral (mg/kg)	3,523.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	4,200.0
Species	Rabbit
ATE dermal (mg/kg)	4,200.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} gases ppmV)	6,700.0
Species	Rat
Acute toxicity inhalation (LC_{50} vapours mg/l)	27.6
Species	Rat
Acute toxicity inhalation (LC_{50} dust/mist mg/l)	10.0

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Species	Rat
ATE inhalation (gases ppm)	6,700.0
ATE inhalation (vapours mg/l)	27.6
ATE inhalation (dusts/mists mg/l)	10.0

Skin corrosion/irritation

Animal data	Dose: 24 and, 72 hours, Rabbit Irritating to skin.

Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation	Not sensitising

Skin sensitisation

Skin sensitisation	- Mouse: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Chromosome aberration: Negative. Ames test: Negative. Gene mutation: Negative.
Genotoxicity - in vivo	Dominant lethal assay, intraperitoneal: Negative.

Carcinogenicity

Carcinogenicity	NOAEL 500 mg/kg, Oral, Rat, male/female Did not show carcinogenic effects in animal experiments.
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility	One-generation study - NOAEL >=500 ppm, Inhalation, Rat, male/female P Two-generation study - NOAEL 500 ppm, Inhalation, Rat, male/female P Two-generation study - NOAEL >500 ppm, Inhalation, male/female F1 Two-generation study - NOAEL >500 ppm, Inhalation, Rat, male/female F2 This substance has no evidence of toxicity to reproduction.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 500 ppm, Inhalation, Rat, female

Specific target organ toxicity - single exposure

STOT - single exposure	May cause respiratory irritation.
Target organs	Central nervous system Liver Kidneys

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 150 mg/kg, (3 months), Oral, Rat NOAEL >3.5 mg/l, (3 months), Inhalation, Rat, Dog
Target organs	Kidneys Liver

Aspiration hazard

1 PACK POLYURETHANE (General colours)

Aspiration hazard	Aspiration hazard - Category 1 If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours)

BUTANONE OXIME

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	900.0
Species	Rat
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	1,000.0
Species	Rabbit
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	4.83
Species	Rat
ATE inhalation (vapours mg/l)	4.83
Skin corrosion/irritation	
Animal data	Rabbit 24 hours - abraded and non-abraded skin Not fully reversible in 72 hours Slightly irritating.
Serious eye damage/irritation	
Serious eye damage/irritation	Corrosive eye irritant in rabbits with corneal damage - Category 1(Irreversible).
Skin sensitisation	
Skin sensitisation	Buehler test: - Guinea pig: Sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	DNA damage and/or repair: Negative. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Gene mutation:: Negative. Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	374 ppm, Inhalation, Rat A liver oncogen in male F-344 rats at a vapor concentration of 374 ppm. NOAEL 54 mg/l, Inhalation, Rat
Reproductive toxicity	
Reproductive toxicity - fertility	Two-generation study - NOAEL >200 mg/kg, Oral, Rat F1
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 200 mg/kg, Oral, Rat

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Skin corrosion/irritation

Animal data Erythema/eschar score: No erythema (0). (rabbit) Oedema score: No oedema (0). (rabbit) Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. (rabbit)

Respiratory sensitisation

Respiratory sensitisation No specific test data are available.

Skin sensitisation

Skin sensitisation Not sensitising. Guinea pig maximisation test Read-across data.

Germ cell mutagenicity

Genotoxicity - in vitro Chromosome aberration: Negative. Read-across data.

Genotoxicity - in vivo Micronucleus test: Negative. Read-across data.

Reproductive toxicity

Reproductive toxicity - fertility One-generation study - NOAEL 300 mg/kg/day, Oral, Rat P Read across data

Reproductive toxicity - development Developmental toxicity: - NOAEL: 100 mg/kg/day, Oral, Rat Read-across data. Maternal toxicity: - NOAEL: 250 mg/kg/day, Oral, Rat Read-across data.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 3150 - 7080 mg/kg/day, Oral, Rat Read-across data.

SECTION 12: Ecological Information

Ecotoxicity There are no data available on the mixture itself. The mixture has been assessed following the method according to the "Classification, labelling and packaging of substances and mixtures" EC1272/2008 and ensuing amendments and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details. Do not allow to enter drains or water courses.

12.1. Toxicity

Toxicity There is no toxicity data for the mixture itself.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Acute toxicity - fish LC_{50}, 96 hours: > 1000 mg/l, Onchorhynchus mykiss (Rainbow trout) OECD

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: > 1000 mg/l, Daphnia magna OECD

Acute toxicity - aquatic plants IC_{50}, 72 hours: >1000 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms EC_{50}, 48 hours: 43.98 mg/l,

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Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.23 mg/l, Daphnia magna

XYLENE

Acute toxicity - fish	LC_{50}, 96 hours: 2.6 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 3.82 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: 2.2 mg/l, Freshwater algae
Acute toxicity - microorganisms	EC_{50}, 24 hours: 96 mg/l, Bacteria
Chronic toxicity - aquatic invertebrates	NOEC, 48 hours: 6.8 mg/l, Daphnia magna

BUTANONE OXIME

Acute toxicity - fish	LC_{50}, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: ~ 201 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: ~ 11.8 mg/l, Selenastrum capricornutum
Acute toxicity - microorganisms	EC_{50}, 17 hours: ~281 mg/l, Pseudomonas putida

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Acute toxicity - fish	NOELR, 96 hours: >=100 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	NOEC, 48 hours: 0.17 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 49.3 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	EC_{50}, 17 hours: 112.1 mg/l, Pseudomonas putida

12.2. Persistence and degradability

Persistence and degradability There is no data for the mixture itself.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Persistence and degradability	28 days - 80% readily biodegradable - OECD 301F

XYLENE

Persistence and degradability	Readily biodegradable

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Biodegradation	- Degradation % >60: 28 days Readily biodegradable

BUTANONE OXIME

Persistence and degradability	The product is readily biodegradable
Stability (hydrolysis)	pH4 - Half-life : <0.3 minute @ °C Hydrolytically unstable at pH4 pH7 - Degradation % 44: 7 days @ 50°C pH9 - Half-life : > 14 days @ 50°C
Biodegradation	Water - Degradation (%) 70%: @ 18 days

2-ETHYL-HEXANOIC ACID, ZIRCONIUM SALT

Phototransformation	Water - DT_{50} : 47.1 hours Read-across data.
Stability (hydrolysis)	Not hydrolysable Read-across data.
Biodegradation	Water - Degradation % 46.54: 10 days Water - Degradation % 73.82: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential	There is no data for the mixture itself.
Partition coefficient	Not determined.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Bioaccumulative potential	May accumulate in soil and water systems.
Partition coefficient	log Pow: 5 - 6.7

XYLENE

Bioaccumulative potential	Not expected to bioaccumulate. BCF: 25.9,
Partition coefficient	log Pow: 3.15

BUTANONE OXIME

Bioaccumulative potential	BCF: 0.5 - 0.6, Cyprinus carpio (Common carp)

2-ETHYL-HEXANOIC ACID, ZIRCONIUM SALT

Bioaccumulative potential	log Pow: 2.96, Read-across data.

12.4. Mobility in soil

Mobility	The product is immiscible with water and will spread on the water surface. The product contains organic solvents which will evaporate easily from all surfaces.

Ecological information on ingredients.

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HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Mobility The product contains organic solvents which will evaporate easily from all surfaces. In soil the product has only slight mobility and will partially evaporate The product has poor water-solubility.

Surface tension 0.0237 mN/m @ 25°C

XYLENE

Mobility The product contains volatile solvents which are immiscible with water and will evaporate into the atmosphere. In soil the product has only slight mobility and will partially evaporate

BUTANONE OXIME

Adsorption/desorption coefficient Water - log Koc: 0.55 @ °C QSAR prediction Negligible adsorption to soil and sediment

2-ETHYL-HEXANOIC ACID, ZIRCONIUM SALT

Henry's law constant 0.294 Pa m³/mol @ 25°C Read-across data.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not allow to enter drains or water courses or dispose of where ground or surface waters may be affected. Waste and emptied containers should be classified in accordance with The Environment Protection (Duty of Care) Regulations" (in England, Scotland, Wales or The Controlled Waste (Duty of Care) Regulations in Northern Ireland).

Waste class The European List of Wastes classification of this product, when disposed of as waste is:
Waste Code: Name of Waste (according to Decision 2000/532/EC):
08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information contact your local waste authority. Using the information provided in this safety data sheet, advice should be obtained from the relevant environment agency whether the Hazardous Waste Regulations apply. Empty containers must be scrapped or reconditioned. Dispose of empty containers contaminated by the product in accordance with local or national legal provisions.

Additional information

SECTION 14: Transport information

General This section contains basic classification information; specific information is not provided for all transport modes if not relevant for the product as supplied. Relevant modal regulations should be consulted if the product is transported onwards.

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Road transport notes VISCOUS FLAMMABLE LIQUID DEROGATION
In pack sizes less than 450 litres, under the terms of 2.2.3.1.5, this product is not subject to the provisions of ADR.

Sea transport notes VISCOUS FLAMMABLE LIQUID DEROGATION:
In pack sizes up to and including 30 litres, under the terms of 2.3.2.5, this product is not subject to the packaging, labelling and marking requirements of the IMDG Code, but both full documentation and placarding of cargo transport units is still required.

Air transport notes VISCOUS FLAMMABLE LIQUID DEROGATION:
The "viscosity exemption" provision does not apply to air transport.

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3

ADR/RID label 3

Transport labels



14.4. Packing group

PG III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

EmS F-E, S-E

Tunnel restriction code (D/E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

SECTION 15: Regulatory information

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

1 PACK POLYURETHANE (General colours)

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Waste Framework Directive (Directive 2008/98/EC on waste) and amendments Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information. See also the section below titled Paints Directive. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
Paints Directive 2004/42/EC	2004/42/IIB(d)(420)420

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

General information	The product should not be used for purposes other than those shown in Section 1.
Key literature references and sources for data	Raw material supplier's Safety Data Sheets. Reference to ECHA Registered Substance dossiers.
Classification procedures according to Regulation (EC) 1272/2008	Unless indicated elsewhere in this safety data sheet, the classification of this mixture has been determined using a combination of test data, bridging principles and calculation.
Legal obligations	
Revision comments	CLP 1.02 Safe use of mixture information added. Amended information in Section 8. This issue replaces issue CLP 1.01. CLP 1.01 Amended to meet recommendations described in CEPE Phrase Catalogue version 10. CHIP classification data removed CLP 1.00 This revision is the first to meet the requirements of the "Classification, labelling and packaging of substances and mixtures (CLP) Regulation" EC 1272/2008 and ensuing adaptations to August 2013 NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	Chief Chemist
Revision date	26/09/2017
Revision	CLP 1.02
Supersedes date	24/02/2016
SDS number	10517

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Hazard statements in full

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.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains BUTANONE OXIME, FATTY ACIDS C6 -19-BRANCHED, COBALT (2+) SALTS. May produce an allergic reaction.

The information of this SDS is based on the present state of our knowledge and on current legislation.
It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.
The product should not to be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instructions.
As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.
The information in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation.

Manor Coating Systems Limited
Safe Use of Mixtures Report

Our SUMI Code: F
Version Number: 1.00
Issue Date: 13/09/2017

Purpose
This Safe Use of Mixtures Report has been compiled from information (including exposure scenarios) that we have received from our suppliers. We are obligated to pass information that is relevant to the safe use of our products (when they are used for their intended purpose and in line with our recommendations shown on our Product Data Sheet) down the supply chain. In general we manufacture mixtures and do not supply substances so we have reviewed the information provided to us and produced this Safe Use of Mixtures Report which should be read in conjunction with the relevant material safety Data Sheet and Product Data Sheet, best practice, process knowledge and guidance notes from the HSE and others when preparing risk assessments and designing safe systems of work. This information is passed down the chain as part of our obligations under REACH.

This report is prepared with our best reasonable endeavour using the information and knowledge in our possession at the date of publication.

SU3 Title	Uses in coatings - Industrial
SU3 Process Category	PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC10, PROC13, PROC15
SU3 Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated)
SU3 Processes, tasks, activities covered	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.
SU3 Other Operational Conditions affecting worker exposure	Assumes use at not > 20°C above ambient. Assumes a good basic standard of occupational hygiene is implemented.
SU3 General exposures (closed systems)	Handle substance within a closed system.
SU3 Mixing operations (closed systems) General exposures (closed systems)	Handle substance within a closed system. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
SU3 Film formation - air drying	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
SU3 Preparation of material for application. Mixing operations (open systems)	Provide a good standard of controlled ventilation (10 to 15 air changes per hour)
SU3 Spraying	Automatic/robotic: Carry out in a vented booth or extracted enclosure. Manual Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear a respirator conforming to EN140 with Type A/P2 filter or better.
SU3 Material transfers. Non-dedicated facility	Ensure material transfers are under containment or extract ventilation.
SU3 Material transfers. Dedicated facility	Ensure material transfers are under containment or extract ventilation.

SU3 Roller, spreader, flow application	Provide extract ventilation to points where emissions occur.
SU3 Dipping, immersion and pouring	Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
SU3 Laboratory activities	No other specific measures identified.
SU3 Material transfers. Drum/batch transfers. Transfer from/pouring from containers	Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear suitable gloves tested to EN374. Avoid splashing. Clear lines prior to decoupling.
SU3 Production of preparation or articles by tabletting, compression, extrusion or pelletisation	Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear suitable coveralls to prevent exposure to the skin.
SU3 Equipment cleaning and maintenance	Drain or remove substance from equipment prior to break-in or maintenance.
SU22 Title	Uses in coatings - Professional
SU22 Process Category	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19
SU22 Processes, tasks, activities covered	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.
SU22 Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated)
SU22 Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient. Assumes a good basic standard of occupational hygiene is implemented.
SU22 General exposures (closed systems)	Handle substance within a closed system. Ensure material transfers are under containment or extract ventilation.
SU22 Filling/preparation of equipment from drums or containers. Handle substance within a closed sys	Ensure material transfers are under containment or extract ventilation.
SU22 Preparation of material for application	Handle substance within a closed system. Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
SU22 Film formation - air drying	Outdoor.Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 1 hour. Wear suitable gloves tested to EN374. Indoor. Provide extract ventilation to points where emissions occur. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
SU22 Preparation of material for application.	Indoor. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out activities involving exposure for more than 1 hour. Outdoor. Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 1 hour.
SU22 Material transfers. Drum/batch transfers	Transfer via enclosed lines. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Wear suitable gloves tested to EN374. Avoid splashing. Clear lines prior to decoupling.

SU22 Brush, Roller, spreader, flow application	Indoor. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear a respirator conforming to EN140 with Type A/P2 filter or better. Outdoor. Ensure operation is undertaken outdoors. Wear a respirator conforming to EN140 with Type A/P2 filter or better.
SU22 Spraying. Manual	Indoor. Carry out in a vented booth or extracted enclosure. Outdoor. Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 4 hours. Wear suitable gloves tested to EN374.Wear a respirator conforming to EN140 with Type A/P2 filter or better.
SU22 Dipping, immersion and pouring.	Indoor. Provide extract ventilation to points where emissions occur. Avoid carrying out activities involving exposure for more than 4 hours Outdoor. Ensure operation is undertaken outdoors. Wear a respirator conforming to EN140 with Type A/P2 filter or better.
SU22 Laboratory activitie	Handle in a fume cupboard or under extract ventilation.
SU22 Equipment cleaning and maintenance	Drain down system prior to equipment break-in or maintenance. Avoid carrying out activities involving exposure for more than 4 hours.
SU22 Equipment cleaning and maintenance	Drain down system prior to equipment break-in or maintenance. Avoid carrying out activities involving exposure for more than 4 hours.

Sectors of Use (SU) and Process Codes (PROC)
Sectors of Use (SU) and Process Codes (PROC) are defined in various regulations.

For the paint industry
SU 3 - Industrial Use of Coatings (eg within a factory on a production line)
SU22 - Use of Coatings by Professional Users (eg a painter and decorator)
Are the most relevant

Method of Preparation
In preparing this Safe Use of Mixtures Report we have relied heavily on the LCID. Specifically contained in Safe Use Information for Mixtures under REACH and the Lead Component (LCID) Methodology - A Brief Description (March 2016) published by CEFIC and their supporting spreadsheets published in 2017.

This approach has been endoursed by the European paint association (CEPE) and the British Coatings Federation (BCF).

The CEFIC approach uses information published by suppliers and in generally available sources including DNELs and PNECs and ECETOC-TRA data.

Further advice, support or assistance
If you require further advice, information, support or assistance please contact us.

Lead Component Identifcation (LCID) information

LC INHALATION	XYLENE
LC DERMAL	HYDROCARBONS, C9 - C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
EYE HAZ 1	XYLENE