

# SAFETY DATA SHEET

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

### 1.1 Product identifier

**Product name** : MACROPOXY C425V2 Epoxy Zinc Phosphate - Base

**Product code** : C425V2B

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

#### Identified uses

Industrial spray painting, enclosed  
Industrial application of coatings and inks by other than spraying  
Professional painting, outdoor brush/roller  
Industrial spray painting, walk-in booth  
Industrial application of coatings and inks by other than spraying - Enclosed  
Professional application of coatings and inks by spraying - Outdoor  
Industrial spray painting, no booth

**Material uses** : Paint or paint related material.  
: Industrial use only.

### 1.3 Details of the supplier of the safety data sheet

Sherwin-Williams UK Limited - Protective & Marine  
Coatings Division EMEA  
Tower Works  
Kestor Street  
Bolton  
BL2 2AL  
United Kingdom  
+44 (0) 1204 521771

The Sherwin-Williams Company  
Inver France SAS  
2 Rue Jean Revaus - BP 80088 - 79102  
Thouars CEDEX  
France

**e-mail address of person responsible for this SDS** : hse.pm.emea@sherwin.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : 111 (general public) /0344 892 111 (Medical professional (NHS) only)

#### Supplier

**Telephone number** : +(44)-870-8200 418

**Hours of operation** : Emergency contact available 24 hours a day

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to UK CLP/GHS

Flam. Liq. 3, H226

Skin Irrit. 2, H315

Eye Irrit. 2, H319

Skin Sens. 1, H317

STOT RE 2, H373

Asp. Tox. 1, H304

Aquatic Chronic 2, H411

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : Flammable liquid and vapour.  
May be fatal if swallowed and enters airways.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause damage to organs through prolonged or repeated exposure.  
Toxic to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Do not breathe vapour.

**Response** : Collect spillage. IF SWALLOWED: Immediately call a POISON CENTER or doctor.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Hazardous ingredients** : 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane MW <= 700  
Xylene, mixed isomers

**Supplemental label elements** : Contains epoxy constituents. May produce an allergic reaction. FOR INDUSTRIAL USE ONLY

#### Special packaging requirements

Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** : None known.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixture

Product/ingredient name	Identifiers	%	Classification	Type
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane MW ≤ 700	EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	≥25 - ≤50	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
Zinc Phosphate	EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≥10 - ≤24	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
Talc	EC: 238-877-9 CAS: 14807-96-6	≥10 - ≤25	Not classified.	[2]
Xylene, mixed isomers	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - <20	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304	[1] [2]
Limestone	EC: 215-279-6 CAS: 1317-65-3	≥10 - ≤25	Not classified.	[2]
Diiron trioxide	EC: 215-168-2 CAS: 1309-37-1	≤10	Not classified.	[2]
Ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≤0.75	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)  <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

- General** : 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.
- 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.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### **4.2 Most important symptoms and effects, both acute and delayed**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations 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 the kidneys, liver and central nervous system. 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. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

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.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight  $\leq 700$ ). May produce an allergic reaction.

### **4.3 Indication of any immediate medical attention and special treatment needed**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray or mist.

**Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous combustion products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

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

### 6.3 Methods and material for containment and cleaning up

: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

### 6.4 Reference to other sections

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

: Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations 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 antistatic footwear and clothing and floors should be of the conducting type.

## SECTION 7: Handling and storage

Keep away from heat, sparks and flame. No sparking tools should be used.  
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Put on appropriate personal protective equipment (see Section 8).

Never use pressure to empty. Container is not a pressure vessel.

Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

### Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

### 7.2 Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking.

Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Contaminated absorbent material may pose the same hazard as the spilt product.

Store in closed original container at temperatures between 5°C and 25°C.

### Seveso Directive - Reporting thresholds

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c E2	5000 tonnes 200 tonnes	50000 tonnes 500 tonnes

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

**Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.**

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Talc	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> TWA 8 hours: 1 mg/m <sup>3</sup> . Form: respirable dust.
xylene	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [xylene, o-,m-, p- or mixed isomers]</b> Absorbed through skin. STEL 15 minutes: 441 mg/m <sup>3</sup> . TWA 8 hours: 50 ppm. TWA 8 hours: 220 mg/m <sup>3</sup> . STEL 15 minutes: 100 ppm.
Limestone	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [limestone]</b> TWA 8 hours: 10 mg/m <sup>3</sup> . Form: total inhalable. TWA 8 hours: 4 mg/m <sup>3</sup> . Form: respirable.
diiron trioxide	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [calcium carbonate]</b> TWA 8 hours: 10 mg/m <sup>3</sup> . Form: inhalable dust. TWA 8 hours: 4 mg/m <sup>3</sup> . Form: respirable dust.
	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [rouge]</b> TWA 8 hours: 10 mg/m <sup>3</sup> . Form: total inhalable. TWA 8 hours: 4 mg/m <sup>3</sup> . Form: respirable.
	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [Iron oxide]</b> STEL 15 minutes: 10 mg/m <sup>3</sup> (as Fe). Form: Fume. TWA 8 hours: 5 mg/m <sup>3</sup> (as Fe). Form: Fume.
ethylbenzene	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> Absorbed through skin. STEL 15 minutes: 552 mg/m <sup>3</sup> . STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. TWA 8 hours: 441 mg/m <sup>3</sup> .

#### Biological exposure indices

Product/ingredient name	Exposure indices
Xylene, mixed isomers	<b>EH40/2005 BMGVs (United Kingdom (UK), 1/2020) [Xylene, o-, m-, p- or mixed isomers]</b> BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift.

- Recommended monitoring procedures**
- : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
  - : Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

#### DNELs/DMELs

Product/ingredient name	Result
-------------------------	--------

SECTION 8: Exposure controls/personal protection

xylene	<b>DNEL - Workers - Long term - Dermal</b> 212 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Dermal</b> 125 mg/kg <u>Effects</u> : Systemic
	<b>DNEL - Workers - Long term - Inhalation</b> 221 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - Workers - Short term - Inhalation</b> 289 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - Workers - Short term - Inhalation</b> 442 mg/m³ <u>Effects</u> : Local
	<b>DNEL - General population - Long term - Inhalation</b> 65.3 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - General population - Short term - Inhalation</b> 260 mg/m³ <u>Effects</u> : Local
	<b>DNEL - General population - Short term - Inhalation</b> 174 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Oral</b> 1.5 mg/kg <u>Effects</u> : Systemic
zinc oxide	<b>DNEL - Workers - Long term - Inhalation</b> 5 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - Workers - Long term - Inhalation</b> 0.5 mg/m³ <u>Effects</u> : Local
	<b>DNEL - Workers - Long term - Dermal</b> 83 mg/kg bw/day <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Inhalation</b> 2.5 mg/m³ <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Dermal</b> 83 mg/kg bw/day <u>Effects</u> : Systemic
	<b>DNEL - General population - Long term - Oral</b> 0.83 mg/kg bw/day <u>Effects</u> : Systemic



## SECTION 8: Exposure controls/personal protection

### PNECs

#### Product/ingredient name

zinc oxide

#### Result

##### Fresh water

0.0206 mg/l

##### Marine water

0.0061 mg/l

##### Sewage Treatment Plant

0.1 mg/l

##### Fresh water sediment

117.8 mg/kg dwt

##### Marine water sediment

56.5 mg/kg dwt

##### Soil

35.6 mg/kg dwt

### 8.2 Exposure controls

#### **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 particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.
- : Users are advised to consider national Occupational Exposure Limits or other equivalent values.

### Individual protection measures

#### **Hygiene measures**

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

- : Use safety eyewear designed to protect against splash of liquids.

#### **Skin protection**

#### **Hand protection**

#### **Gloves**

- : Wear suitable gloves tested to EN374.
- : Gloves for term exposure/splash protection (less than 10 min): Nitrile > 0.12 mm  
Gloves for splash protection need to be changed immediately when in contact with chemicals.  
Gloves for repeated or prolonged exposure (breakthrough time > 240 min.) When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm Otherwise use: Butyl gloves > 0.3 mm For long term exposure or spills (breakthrough time > 480 min.): Use PE laminated gloves as under gloves  
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.  
The recommendation for the type or types of glove to use when handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG).

## SECTION 8: Exposure controls/personal protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.  
The breakthrough time must be greater than the end use time of the product.  
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 but should not be applied once exposure has occurred.  
The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

- Body protection** :
- Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
  - Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to British Standard BS EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** :
- Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** :
- Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Environmental exposure controls** : Do not allow to enter drains or watercourses.

**Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.**

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : Orange.
- Odour** : Paint
- Odour threshold** : Not Available (Not Tested).
- pH** : Not relevant/applicable due to nature of the product.  
insoluble in water.
- Melting point/freezing point** : Not relevant/applicable due to nature of the product.
- Initial boiling point and boiling range** : 136°C

## SECTION 9: Physical and chemical properties

<b>Flash point</b>	: Closed cup: 24°C [Pensky-Martens Closed Cup]
<b>Evaporation rate</b>	: 0.8 (butyl acetate = 1)
<b>Flammability</b>	: Flammable liquid.
<b>Lower and upper explosion limit</b>	: LEL: 1% (Xylene, mixed isomers) UEL: 7% (Xylene, mixed isomers)
<b>Vapour pressure</b>	: 0.95 kPa (7.1 mm Hg)
<b>Relative vapour density</b>	: 3.66 [Air = 1]
<b>Relative density</b>	: 1.65
<b>Solubility(ies)</b>	:

Media	Result
cold water	Not soluble

**Partition coefficient: n-octanol/ water** : Not relevant/applicable due to nature of the product.

**Auto-ignition temperature** : Not relevant/applicable due to nature of the product.

**Decomposition temperature** : Not relevant/applicable due to nature of the product.

**Viscosity** : Kinematic (40°C): <20.5 mm<sup>2</sup>/s

**Explosive properties** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Oxidising properties** : Under normal conditions of storage and use, hazardous reactions will not occur.

### Particle characteristics

**Median particle size** : Not relevant/applicable due to nature of the product.

## 9.2 Other information

**Heat of combustion** : 4.607 kJ/g

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : When exposed to high temperatures may produce hazardous decomposition products.

**10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

**10.6 Hazardous decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.**

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations 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 the kidneys, liver and central nervous system. 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. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

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.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700). May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result
xylene	<b>Rat - Oral - LD50</b> 4300 mg/kg <u>Toxic effects:</u> Liver - Other changes Kidney, Ureter, and Bladder - Other changes
	<b>Rat - Inhalation - LC50 Gas.</b> 6700 ppm [4 hours] <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity)
ethylbenzene	<b>Rat - Oral - LD50</b> 3500 mg/kg <u>Toxic effects:</u> Liver - Other changes Kidney, Ureter, and Bladder - Other changes
	<b>Rabbit - Dermal - LD50</b> >5000 mg/kg

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MACROPOXY C425V2 Epoxy Zinc Phosphate - Base	N/A	8444.8	51436.3	477.2	N/A
xylene	4300	1100	6700	N/A	N/A
ethylbenzene	3500	N/A	N/A	11	N/A

## SECTION 11: Toxicological information

### Skin corrosion/irritation

#### Product/ingredient name

reaction product: bisphenol-A-  
(epichlorhydrin); epoxy resin (number  
average molecular weight  $\leq$  700)

#### Result

##### **Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 uL

##### **Rabbit - Skin - Severe irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Talc

##### **Human - Skin - Mild irritant**

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 300 ug l

xylene

##### **Rat - Skin - Mild irritant**

Duration of treatment/exposure: 8 hours

Amount/concentration applied: 60 uL

##### **Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

##### **Rabbit - Skin - Moderate irritant**

Amount/concentration applied: 100 %

ethylbenzene

##### **Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 15 mg

zinc oxide

##### **Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Conclusion/Summary [Product]** : Not available.

### Serious eye damage/eye irritation

#### Product/ingredient name

reaction product: bisphenol-A-  
(epichlorhydrin); epoxy resin (number  
average molecular weight  $\leq$  700)

#### Result

##### **Rabbit - Eyes - Mild irritant**

Amount/concentration applied: 100 mg

xylene

##### **Rabbit - Eyes - Mild irritant**

Amount/concentration applied: 87 mg

##### **Rabbit - Eyes - Severe irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 5 mg

ethylbenzene

##### **Rabbit - Eyes - Severe irritant**

Amount/concentration applied: 500 mg

zinc oxide

##### **Rabbit - Eyes - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Conclusion/Summary [Product]** : Not available.

## SECTION 11: Toxicological information

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : Not available.

### Respiratory or skin sensitization

Not available.

#### **Skin**

**Conclusion/Summary [Product]** : Not available.

#### **Respiratory**

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

#### **Product/ingredient name**

xylene

#### **Result**

STOT SE 3, H335 (Respiratory tract irritation)



### Specific target organ toxicity (repeated exposure)

#### **Product/ingredient name**

xylene

ethylbenzene

#### **Result**

STOT RE 2, H373

STOT RE 2, H373 (hearing organs)



### Aspiration hazard

#### **Product/ingredient name**

xylene

ethylbenzene

#### **Result**

ASPIRATION HAZARD - Category 1

ASPIRATION HAZARD - Category 1



### Information on likely routes of exposure

Not available.

### Potential acute health effects

## **SECTION 11: Toxicological information**

<b>Eye contact</b>	: Causes serious eye irritation.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Skin contact</b>	: Causes skin irritation. May cause an allergic skin reaction.
<b>Ingestion</b>	: May be fatal if swallowed and enters airways.

### **Symptoms related to the physical, chemical and toxicological characteristics**

<b>Eye contact</b>	: Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: Adverse symptoms may include the following: nausea or vomiting

### **Delayed and immediate effects as well as chronic effects from short and long-term exposure**

#### **Short term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### **Long term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

### **Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** : Not available.

<b>General</b>	: May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: No known significant effects or critical hazards.

### **Other information**

Not available.

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

<b>Product/ingredient name</b>	<b>Result</b>
--------------------------------	---------------

SECTION 12: Ecological information

trizinc bis(orthophosphate)	<div> <div>Acute - LC50 - Fresh water</div> <div> Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i>  Age: 180 days; <u>Weight</u>: 1.5 g  90 µg/l [96 hours]  <u>Effect</u>: Mortality </div> </div>
xylene	<div> <div>Acute - LC50 - Marine water</div> <div> Crustaceans - Daggerblade grass shrimp - <i>Palaemon pugio</i>  8500 µg/l [48 hours]  <u>Effect</u>: Mortality </div> </div> <div> <div>Acute - LC50 - Fresh water</div> <div> Fish - Fathead minnow - <i>Pimephales promelas</i>  Age: 31 days; <u>Size</u>: 18.4 mm; <u>Weight</u>: 0.077 g  13.4 mg/l [96 hours]  <u>Effect</u>: Mortality </div> </div>
ethylbenzene	<div> <div>Acute - LC50 - Fresh water</div> <div> Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i>  4200 µg/l [96 hours]  <u>Effect</u>: Mortality </div> </div> <div> <div>Acute - EC50 - Fresh water</div> <div> Daphnia - Water flea - <i>Daphnia magna</i> - Neonate  Age: ≤24 hours  2.93 mg/l [48 hours]  <u>Effect</u>: Intoxication </div> </div> <div> <div>Acute - EC50 - Fresh water</div> <div> Algae - Green algae - <i>Raphidocelis subcapitata</i>  3600 µg/l [96 hours]  <u>Effect</u>: Population </div> </div>
zinc oxide	<div> <div>Acute - LC50 - Fresh water</div> <div> Daphnia - Water flea - <i>Daphnia magna</i> - Neonate  Age: &lt;24 hours  98 µg/l [48 hours]  <u>Effect</u>: Mortality </div> </div> <div> <div>Acute - LC50 - Fresh water</div> <div> US EPA  Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i>  <u>Weight</u>: 0.78 g  1.1 ppm [96 hours]  <u>Effect</u>: Mortality </div> </div> <div> <div>Acute - IC50 - Fresh water</div> <div> Algae - Green algae - <i>Raphidocelis subcapitata</i> - Exponential growth phase  46 µg/l [72 hours]  <u>Effect</u>: Population </div> </div>

Conclusion/Summary [Product]

:

Not available.

12.2 Persistence and degradability

Not available.



**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

**MACROPOXY C425V2 Epoxy Zinc Phosphate - Base**

**C425V2B**

## SECTION 12: Ecological information

**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
ethylbenzene	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	-	31	Low
trizinc bis(orthophosphate)	-	60960	High
Xylene, mixed isomers	-	8.1 to 25.9	Low
zinc oxide	-	28960	High

### 12.4 Mobility in soil

**Soil/water partition coefficient** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	No	No	No	No	No	No	No
trizinc bis(orthophosphate)	No	No	No	No	No	No	No
Talc	No	No	No	No	No	No	No
xylene	No	No	No	Yes	No	No	No
Limestone	No	No	No	No	No	No	No
diiron trioxide	No	No	No	No	No	No	No
ethylbenzene	No	No	No	Yes	No	No	No
zinc oxide	No	No	No	No	No	No	No

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

## SECTION 13: Disposal considerations

**European waste catalogue (EWC)** : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11\*

**Disposal considerations** : Do not allow to enter drains or watercourses.  
Dispose of according to all federal, state and local applicable regulations.  
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.

### Packaging






**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

**European waste catalogue (EWC)** : packaging containing residues of or contaminated by hazardous substances 15 01 10\*

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
<b>14.1 UN number or ID number</b>	UN1263	UN1263	UN1263
<b>14.2 UN proper shipping name</b>	PAINT	PAINT. Marine pollutant (Epoxy Polymer, Zinc Phosphate)	PAINT
<b>14.3 Transport Hazard Class(es)/ Label(s)</b>	3  	3  	3 
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
<b>Additional information</b>	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Tunnel code</b> D/E	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Emergency schedules</b> F-E, S-E	The environmentally hazardous substance mark may appear if required by other transportation regulations.

**14.6 Special precautions for user** : **Transport within 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 an accident or spillage.

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

MACROPOXY C425V2 Epoxy Zinc Phosphate - Base

C425V2B

## SECTION 14: Transport information

**14.7 Maritime transport in bulk according to IMO instruments** : Not applicable.

*Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.*

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture UK (GB)/REACH**

### Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

#### Ozone depleting substances

Not listed.

#### Prior Informed Consent (PIC)

Not listed.

#### Persistent Organic Pollutants

Not listed.

### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
MACROPOXY C425V2 Epoxy Zinc Phosphate - Base	≥90	3
toluene	≤0.1	48
bisphenol A	<0.1	66

**Labelling** : Not applicable.

#### Seveso Directive

This product is controlled under the Seveso Directive.

#### Danger criteria

Category
P5c
E2

#### EU regulations

**VOC content (2010/75/EU)** : 15.3 w/w  
253 g/l

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

**MACROPOXY C425V2 Epoxy Zinc Phosphate - Base**

**C425V2B**

## **SECTION 15: Regulatory information**

### **Stockholm Convention on Persistent Organic Pollutants**

Not listed.

### **Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## **SECTION 16: Other information**

✔ Indicates information that has changed from previously issued version.

### ***Abbreviations and acronyms***

: ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative  
N/A = Not available

***Key literature references and sources for data*** : Not available.

### **Procedure used to derive the classification**

<b>Classification</b>	<b>Justification</b>
Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

### **Full text of abbreviated H statements**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### **Full text of classifications**

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

**MACROPOXY C425V2 Epoxy Zinc Phosphate - Base**

**C425V2B**

## **SECTION 16: Other information**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

**Date of printing** : 29, Mar, 2025.

**Date of issue/ Date of revision** : 29, Mar, 2025

**Date of previous issue** : 22, Feb, 2025

: If there is no previous validation date please contact your supplier for more information.

**Version** : 20.07

### **Notice to reader**

***In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.***

***SUMI(s) will be added to the SDS for products if both the following conditions are met:***

- ***The product is classified as hazardous for health***
- ***The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided***

***It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become make themselves aware of and understand the data contained in this SDS and any hazards that may be associated with the product. This information is provided in good faith and believed to be accurate as of the effective date mentioned herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can may change later the composition, hazards and risks of the product. Products shall should not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to, the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for the use of the product are not under the manufacturer's control of the manufacturer; the customer/buyer/user is responsible to for determine determining the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS, without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be held responsible for SDSs obtained from any other source.***

# SUMI

## Safe Use of Mixtures

### Information for end-users

**Title** : Industrial spray painting, enclosed

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

## General description of the process covered

Paint application on industrial line with fully-enclosed spraying

## Operational conditions

**Place of use** : Indoor use

## Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Full containment/extraction	100 or equivalent
Film formation - force drying, stoving and other technologies	PROC02	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	None	None	None
Film formation - force drying, stoving and other technologies	PROC02	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Application equipment cleaning outside booth	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
------------------	---------	------	-------------------------------------------	---------------------------------------

See section 8 of this Safety Data Sheet for specifications.



## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

# SUMI

## Safe Use of Mixtures

### Information for end-users

**Title** : Industrial application of coatings and inks by other than spraying-Local exhaust ventilation  
*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

## General description of the process covered

Paint application on industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (local exhaust ventilation only)

## Operational conditions

**Place of use** : Indoor use

## Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.



See section 8 of this Safety Data Sheet for specifications.



## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

# SUMI

## Safe Use of Mixtures

### Information for end-users

**Title** : Professional painting, outdoor brush/roller

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

## General description of the process covered

Outdoor painting by professionals with brush or roller

## Operational conditions

**Place of use** : Outdoor use

## Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Outdoors	3 - 5
Loading of application equipment and handling of coated parts before curing	PROC08a	More than 4 hours	Outdoors	3 - 5
Professional application of coatings and inks by brush or roller	PROC10	More than 4 hours	Outdoors	3 - 5
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Outdoors	3 - 5
Cleaning	PROC05	More than 4 hours	Outdoors	3 - 5
Waste management	PROC08a	More than 4 hours	Outdoors	3 - 5

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Professional application of coatings and inks by brush or roller	PROC10	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.



## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

# SUMI

## Safe Use of Mixtures

### Information for end-users

**Title** : Industrial spray painting, walk-in booth

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

## General description of the process covered

Paint application on industrial line with walk-in spray booth

## Operational conditions

**Place of use** : Indoor use

## Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	Compressed-air breathing apparatus to EN 14594 with an assigned protection factor of at least 20.	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Application equipment	PROC05	None	Use eye protection	Wear suitable gloves

MACROPOXY C425V2 Epoxy Zinc Phosphate - Base			Industrial spray painting, walk-in booth	
cleaning outside booth			according to EN 16321.	tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.



## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

# SUMI

## Safe Use of Mixtures

## Information for end-users

**Title** : Industrial application of coatings and inks by other than spraying-Enclosed

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

### General description of the process covered

Paint application on industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (enclosed application)

### Operational conditions

**Place of use** : Indoor use

### Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC02	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	None	None	None
Film formation - force drying, stoving and other technologies	PROC02	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

**MACROPOXY C425V2 Epoxy Zinc Phosphate - Base    Industrial application of coatings and inks by other than spraying-Enclosed**

Application equipment cleaning outside booth	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.



## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

# SUMI

## Safe Use of Mixtures

### Information for end-users

**Title** : Professional application of coatings and inks by spraying-Outdoor

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

## General description of the process covered

Outdoor spray painting by professionals for general applications (e.g. decorative)

## Operational conditions

**Place of use** : Outdoor use

## Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	1 to 4 hours	Outdoors	3 - 5
Loading of application equipment and handling of coated parts before curing	PROC08a	1 to 4 hours	Outdoors	3 - 5
Professional application of coatings and inks by spraying	PROC11	1 to 4 hours	Outdoors	3 - 5
Film formation - force drying, stoving and other technologies	PROC04	1 to 4 hours	Outdoors	3 - 5
Cleaning	PROC05	1 to 4 hours	Outdoors	3 - 5
Waste management	PROC08a	1 to 4 hours	Outdoors	3 - 5

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Professional application of coatings and inks by spraying	PROC11	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.





## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

# SUMI

## Safe Use of Mixtures

### Information for end-users

**Title** : Industrial spray painting, no booth

*This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.*

## General description of the process covered

Paint application on industrial line with no enclosure (only local exhaust ventilation)

## Operational conditions

**Place of use** : Indoor use

## Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.



## Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.

No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

**Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758**

**MACROPOXY C425V2 Epoxy Zinc Phosphate - Base**

**C425V2B**