

Philadelphia Coatings LLC

Americas Office: 6 Georgian Row, The Woodlands, Texas, TX 77380, USA

Tel: +1 832-948-5588

E-mail: info@philacoatings.com

Website: www.philacoatings.com



Safety Data Sheet

1. Chemicals and enterprise identification

Product name and code: **PHILADUR ALU PHE 06/06 Comp. A**

Application of the substance: Two component epoxy primer & finish

Product use: Coating Solvent-borne

Colors: Silver, Silver Reddish

Supplier/manufacturer: Philadelphia Coatings LLC

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Chemical emergency response numbers: 1-800-255-3924 for Domestic and +1-813-248-0585 for International.

Shipments of hazardous materials within the listed countries should reference ChemTel's in-county phone numbers:

Australia: 1-300-954-583, Brazil: 0-800-591-6042, China: 400-120-0751, India: 000-800-100-4086, Mexico: 01-800-099-0731

2. Hazards identification

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 (REACH), Annex II and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Pictograms:



Signal word: Danger

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Hazard classification (GHS) and indication:

Flammable liquids	Category 2	H225	High flammable liquid and vapour
Flammable liquids	Category 3	H226	Flammable liquid and vapour
Flammable solids	Category 1	H228	Flammable solid
Substances and mixtures which in contact with water emit flammable gases	Category 2	H261	In contact with water releases flammable gases
Acute toxicity Oral	Category 4	H302	Harmful if swallowed
Aspiration Hazard	Category 1	H304	May be fatal if swallowed and enters airways
Acute toxicity Dermal	Category 4	H312	Harmful in contact with skin
Acute toxicity/Inhalation (Dust and Mists)	Category 4	H332	Harmful if inhaled
Skin corrosion/irritation	Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation	Category 2	H319	Causes serious eye irritation
Skin sensitizers	Category 1	H317	May cause an allergic skin reaction
Specific target organ toxicity, single exposure	Category 3 (respiratory tract irritation)	H336	May cause drowsiness or dizziness
Aquatic environmental hazard/Long-term	Category 2	H411	Toxic to aquatic life with long lasting effects



Safety Data Sheet

3. Ingredient/composition information

Chemical name	Notes	Cas number	EC number	% by weight	Classification
xylene	C	1330-20-7	215-535-7	2.5-10	Flam. Liq. 3, H226 Acute Tox. 4, H312, Acute Tox. 4, H332 Skin. Irrit. 2, H315 Eye Irrit. 2, H319
Bisphenol-A-(Chloromethyl) Epoxy resin (MW ≤ 700)		25068-38-6	500-033-5	10-25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Epoxy resin (MW 700-1200)	-	25036-25-3	-	10-25	Skin Sens. 1, H317
aluminium powder (stabilised)		7429-90-5	231-072-3	2.5-10	Flam. Sol. 1, H228 Water-react. 2, H261
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics		64742-48-9	265-150-3	2.5-10	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336
benzyl alcohol	-	100-51-6	202-859-9	2.5-10	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319
1-methoxy-2-propanol	-	107-98-2	203-539-1	≤ 2,5%	Flam. Liq. 3, H226 STOT SE 3, H336

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

4. 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: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

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

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.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

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5. Fire-fighting measures

Extinguishing media: Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Extinguishing media not to be used: Do not use water jet.

Recommendations: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

6. Accidental release measures

Personal precautions: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. 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).

Spill: Preferably clean with a detergent. Avoid using solvents.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling: Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. To dissipate static electricity during transfer, earth drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. 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.

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.

When operators, whether spraying or not, must work inside the spray booth, ventilation is unlikely to be enough to control particulates and solvent vapor 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 vapor concentration has fallen below the exposure limits.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used.

Storage: Store in accordance with local regulations. Observe label precautions. Store in a dry, cool and well-ventilated area.

Keep away from heat and direct sunlight. No smoking. Prevent unauthorized access.

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

Do not empty into drains. Keep away from sources of ignition. Keep away from oxidizing agents, strong alkalis, strong acids.

8. Exposure controls/personal protection

Engineering measures: Provide adequate ventilation. Where reasonably practicable, this should be achieved using local exhaust ventilation and good general extraction. If these are not enough to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

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Ingredient name & Occupational exposure limits

Xylene:

EU OEL (Europe, 12/2017). Absorbed through skin.

STEL: 442 mg/m³ 15 minutes.

STEL: 100 ppm 15 minutes.

TWA: 221 mg/m³ 8 hours.

TWA: 50 ppm 8 hours.

1-methoxy-2-propanol:

EH40/2005 WELs (12/2017). Absorbed through skin.

STEL: 560 mg/m³ 15 minute(s).

STEL: 150 ppm 15 minute(s).

TWA: 375 mg/m³ 8 hour(s).

TWA: 100 ppm 8 hour(s).

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
xylene	DNEL	Long term Inhalation	77 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic

Predicted effect concentrations

Product/ingredient name	Compartment detail	Value	Method detail
xylene	Fresh water	0.327 mg/l	-
	Marine water	0.327 mg/l	-
	Fresh water sediment	12.46 mg/kg	-
	Marine water sediment	12.46 mg/kg	-
	Soil	2.31 mg/kg	-
	Sewage Treatment Plant	6.68 mg/l	-

Personal protective equipment

Skin and body: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Hands: Wear suitable gloves. Recommended, gloves (breakthrough time) > 8 hours: Viton, Responder, nitrile rubber, 4H, Teflon. May be used, gloves (breakthrough time) 4 - 8 hours: neoprene, butyl rubber. Not recommended, gloves (breakthrough time) < 1 hour: polyvinyl alcohol (PVA), PVC. For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and considers the conditions of use, as included in the user's risk assessment.

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

Respiratory system: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use respiratory mask with charcoal and dust filter when spraying this product. (as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoal filter.

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9. Physical and chemical properties

Physical state: Liquid.

Odor: Characteristic.

Color: Various colors.

Flash point: Closed cup: 26°C (78.8°F)

Density: 1.55481 g/cm³ at 20°C

Relative density: N/A

Explosion limits: 1.1 – 7.0%

Viscosity Dynamic at 20 °C: 10200 mPas

Viscosity Kinematic: N/A

VOC: 235.3 g/l

Solubility: Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7). Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

11. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Xylene	Mortality	Acute LC50 12000 to 16114 ug/L Fresh water	Fish - Bluegill -Lepomis macrochirus-1.1g	96 hours
Bisphenol-A (Chloromethyl)		Acute EC50 1.7 mg/l	Daphnia	48 hours
Epoxy resin (MW ≤ 700)		Acute EC50 9.4 mg/l	Algae	72 hours
benzyl alcohol		Acute EC50 230 mg/l	Daphnia	48 hours
		Acute LC50 770 mg/l	Algae	72 hours
		Acute LC50 460 mg/l	Fish	96 hours

Ecological information

Biodegradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Xylene	-	-	Readily
benzyl alcohol	-	-	Readily

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Bio accumulative potential

Product/ingredient name	LogKow	BCF	Potential
Xylene	3.12	8.1 to 25.9	low
benzyl alcohol	0.87	1.37	low
1-methoxy-2-propanol	<1	-	low

12. Toxicological information

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements) and classified for toxicological hazards accordingly. See sections 2 and 15 for details.

Exposure to component solvent vapor 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. Solvents may cause some of the above effects by absorption through the skin.

Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness in extreme cases and loss of consciousness. Repeated or prolonged contact with the preparation 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. Swallowing may cause nausea, diarrhea, vomiting, gastro-intestinal irritation and chemical pneumonia.

Contains: epoxy resin (MW 700-1200). May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Exposure
Xylene	LC50 (Inhalation Gas.) 5000 ppm	Rat	4 hours
	LC50 (Inhalation Vapor) 6350 ppm	Rat	4 hours
	LD50 (Dermal) 4200 mg/kg	Rabbit	4 hours
	LD50 (Oral) 3523 mg/kg	Rat	4 hours
Bisphenol-A-(Chloromethyl) Epoxy resin (MW ≤ 700)	LD50 (Oral) 5000 mg/kg	Rat	4 hours
	LD50 (Dermal) 2000 mg/kg	Rat	4 hours
benzyl alcohol	LC50 Inhalation Dusts and mists >4178 mg/m ³	Rat	4 hours
	LD50 Oral 1620 mg/kg	Rat	4 hours
1-methoxy-2-propanol	LD50 (Oral)	Rat	4 hours
	LD50 (Dermal) 6600 mg/kg	Rabbit	4 hours

13. Disposal considerations

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

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

If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

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14. Transport information

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.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

International transport regulations

	UN Number	Proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards	Additional information
ADR/RID Class	UN 1263	PAINT	3 	III	No	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. Tunnel restriction code (D/E)
IMDG/IMO Class	UN 1263	PAINT	3 	III	No	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules (EmS) F-E, S-E
ICAO/IATA Class	UN 1263	PAINT	3 	III	No	The environmentally hazardous substance mark may appear if required by other transportation regulations.

15. Regulatory information

EU regulations: The product is classified and labeled for supply in accordance with EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations

Europe inventory: At least one component is not listed

Black List Chemicals: Not listed

Priority List Chemicals: Not determined

Industrial emissions (integrated pollution prevention and control) – Air: Listed

Industrial emissions (integrated pollution prevention and control) – Water: Not listed

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Industrial use: 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.

16. Other information

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

EUH statement = CLP-specific Hazard statement

RRN = REACH Registration Number

DNEL = Derived No Effect Level

CEPE Classification: 1

Full text of abbreviated H statements referred to in sections 2 and 3:

H225 Highly flammable liquid and vapor

H226 Flammable liquid and vapor

H228 Flammable solid

H261 In contact with water releases flammable gases

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

H319 Causes serious eye irritation

H332 Harmful if inhaled

H336 May cause drowsiness or dizziness

H411 Toxic to aquatic life with long-lasting effects

Full text of classifications [CLP/GHS]:

Aquatic Chronic 2, H411 LONG-TERM AQUATIC HAZARD - Category 2

Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4

Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4

Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2

Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3

Acute Tox. 4, H302 ACUTE TOXICITY (Oral) - Category 4

Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1

Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1

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STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Flam. Sol. 1, H228, FLAMMABLE SOLIDS - Category 1

Water-react. 2, H261, Substances and mixtures which in contact with water emit flammable gases - Category 2

This Safety Data Sheet is prepared in accordance with according to Regulation (EC) No. 1272/2008 [CLP/GHS].

Notice to whom it may concern:

Your attention and information in this MSDS are based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

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1. Chemicals and enterprise identification

Product name and code: **PHILADUR ALU PHE 06/06 HARDENER Comp. B**

Application of the substance: **Two component epoxy primer & finish**

Product use: **Coating Hardener / Solvent-borne**

Supplier/manufacturer: **Philadelphia Coatings LLC**

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Hazard classification (GHS) and indication:

Flammable liquids	Category 3	H226	Flammable liquid and vapour
Acute toxicity Oral	Category 4	H302	Harmful if swallowed
Acute toxicity Dermal	Category 4	H312	Harmful in contact with skin
Skin corrosion/irritation	Category 1	H314	Causes severe skin burns and eye damage
Skin corrosion/irritation	Category 2	H315	Causes skin irritation
Skin sensitizers	Category 1	H317	May cause an allergic skin reaction
Serious eye damage/eye irritation	Category 1	H318	Causes serious eye damage
Specific target organ toxicity, single exposure	Category 3 (respiratory tract irritation)	H335	May cause respiratory irritation
Specific target organ toxicity, single exposure	Category 3 (respiratory tract irritation)	H336	May cause drowsiness or dizziness
Specific Target Organ toxicity - repeated exposure	Category 1	H372	Cause damage to organs through prolonged or repeated exposure
Specific Target Organ toxicity - repeated exposure	Category 2	H373	May cause damage to organs through prolonged or repeated exposure
Aquatic environmental hazards/Acute	Category 3	H402	Harmful to aquatic life
Aquatic environmental hazard/Chronic	Category 2	H411	Toxic to aquatic life with long lasting effects
Aquatic environmental hazard/Chronic	Category 3	H412	Harmful to aquatic life with long lasting effects

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3. Ingredient/composition information

Chemical name	Notes	Cas number	EC number	% by weight	Classification
Formaldehyde, polymer with benzeneamine, hydrogenated		135108-88-2	-	25-50	Skin. Corr. 1B, H314 Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Chronic 3, H412 STOT RE 2, H373 (hearing organs)
Phenol, methylstyrenated		68512-30-1	-	25-50	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Butanol	6	71-36-3	200-751-6	10-25	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin. Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 H336 STOT RE 1, H372
4,4'-methylenebis(cyclohexylamine)		1761-71-3	217-168-8	2.5-10	Skin. Corr. 1A, H314 Aquatic Chronic 2, H411 Acute Tox. 4, H302 Skin Sens. 1, H317 STOT RE 2, H373 (hearing organs)
Triethylenetetramine		112-24-3	203-950-6		Skin. Corr. 1B, H314 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

4. 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: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

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

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.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

5. Fire-fighting measures

Extinguishing media: Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Extinguishing media not to be used: Do not use water jet.

Recommendations: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

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6. Accidental release measures

Personal precautions: Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. 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).

Spill: Preferably clean with a detergent. Avoid using solvents.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling: Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. To dissipate static electricity during transfer, earth drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. 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.

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.

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

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used.

Storage: Store in accordance with local regulations. Observe label precautions.

Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

No smoking. Prevent unauthorized access.

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

Do not empty into drains. Keep away from sources of ignition. Keep away from oxidizing agents, strong alkalis, strong acids.

8. Exposure controls/personal protection

Engineering measures: Provide adequate ventilation. Where reasonably practicable, this should be achieved using local exhaust ventilation and good general extraction. If these are not enough to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

Ingredient name & Occupational exposure limits

Butanol:

EU OEL (Europe, 12/2017). Absorbed through skin.

STEL: 154 mg/m³ 15 minute(s).

STEL: 50 ppm 15 minute(s).

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Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
Formaldehyde, polymer with benzeneamine, hydrogenated	DNEL	Long term Inhalation	0.2 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Acute	2 mg/m ³	Workers	Systemic
Phenol, methylstyrenated	DNEL	Long term Inhalation	28 mg/m ³	General	Systemic
	DNEL	Long term Inhalation	57 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General	Systemic
	DNEL	Long term Dermal	8 mg/kg bw/day	General	Systemic
	DNEL	Long term Dermal	16.4 mg/kg bw/day	Workers	Systemic
Butanol	DNEL	Long term Inhalation	55 mg/m ³	General	Systemic
	DNEL	Long term Inhalation	310 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	3125 mg/kg bw/day	General	Systemic

Predicted effect concentrations

Product/ingredient name	Compartment detail	Value	Method detail
Formaldehyde, polymer with benzeneamine, hydrogenated	Fresh water	15 ug/l	-
	Marine water	1.5 ug/l	-
	Fresh water sediment	15 mg/kg	-
	Marine water sediment	1.5 mg/kg	-
	Soil	1.8 mg/kg	-
	Sewage Treatment Plant	1.9 mg/l	-
Phenol, methylstyrenated	Fresh water	14 ug/l	-
	intermittent release	140 ug/l	-
	Marine water	1.4 ug/l	-
	Fresh water sediment	52.9 mg/kg	-
	Marine water sediment	5.3 mg/kg	-
	Soil	10.5 mg/kg	-
	Sewage Treatment Plant	2.4 mg/l	-
Butanol	Fresh water	14 ug/l	-
	intermittent release	2.25 mg/l	-
	Marine water	8.2 ug/l	-
	Fresh water sediment	0.178 mg/kg	-
	Marine water sediment	0.0178 mg/kg	-
	Soil	0.015 mg/kg	-
	Sewage Treatment Plant	2476 mg/l	-

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Personal protective equipment

Skin and body: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Hands: Wear suitable gloves. Recommended, gloves(breakthrough time) > 8 hours: Viton, Responder, nitrile rubber, 4H, Teflon. May be used, gloves(breakthrough time) 4 - 8 hours: neoprene, butyl rubber. Not recommended, gloves (breakthrough time) < 1 hour: polyvinyl alcohol (PVA), PVC. For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and considers the conditions of use, as included in the user's risk assessment.

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

Respiratory system: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use respiratory mask with charcoal and dust filter when spraying this product. (as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoal filter.

9. Physical and chemical properties

Physical state: Liquid.

Odor: Characteristic.

Flash point: Closed cup: 44°C (111.2°F)

Density: 0.97998 g/cm³ at 20°C

Relative density: N/A

Explosion limits: 1.5 – 9.4%

Viscosity Dynamic at 20 °C: 300 mPas

Viscosity Kinematic: N/A

VOC: 137.2 g/l

Solubility: Insoluble in the following materials: cold water and hot water.

10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7). Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

11. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Formaldehyde, polymer with benzeneamine, hydrogenated		Acute EC50 18.6 mg/l	Daphnia	48 hours
		Acute EC50 43.94 mg/l	Algae	72 hours
Phenol, methylstyrenated		Acute EC50 14-51 mg/l	Daphnia	48 hours
		Acute EC50 15 mg/l	Algae	72 hours
Butanol		Acute EC50 1328 mg/l	Daphnia	48 hours
4,4'-methylenebis(cyclohexylamine)		Acute EC50 9.24 mg/l	Daphnia	48 hours
		Acute EC50 140-200 mg/l	Algae	72 hours



Safety Data Sheet

Ecological information

Biodegradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Butanol	-	-	Readily

Bio accumulative potential

Product/ingredient name	LogKow	BCF	Potential
Butanol	0.88	3	Low

12. Toxicological information

There is no data available on the preparation itself. The preparation has been assessed following the conventional method of the EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements) and classified for toxicological hazards accordingly. See sections 2 and 15 for details.

Exposure to component solvent vapor concentrations more than 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. Solvents may cause some of the above effects by absorption through the skin.

Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness in extreme cases and loss of consciousness. Repeated or prolonged contact with the preparation 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. Swallowing may cause nausea, diarrhea, vomiting, gastro-intestinal irritation and chemical pneumonia.

Acute toxicity

Product/ingredient name	Result	Species	Exposure
Formaldehyde, polymer with benzeneamine, hydrogenated	LD50 (Dermal) 1000 mg/kg	Rat	4 hours
	LD50 (Oral) 368 mg/kg	Rat	4 hours
Phenol, methylstyrenated	LD50 (Oral) 2000 mg/kg	Rat	4 hours
	LD50 (Dermal) 2000 mg/kg	Rat	4 hours
Butanol	LD50 (Oral) 2292 mg/kg	Rat	4 hours
	LD50 (Inhalation) 17.76 mg/l	Rat	4 hours
	LD50 (Dermal) 3400 mg/kg	Rabbit	4 hours
4,4'-methylenebis(cyclohexylamine)	LD50 (Oral) 670 mg/kg	Rat	4 hours

13. Disposal considerations

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

European waste catalogue (EWC): 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

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14. Transport information

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.

Transport in accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

International transport regulations

	UN Number	Proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards	Additional information
ADR/RID Class	UN 1263	PAINT	3 	III	No	Tunnel restriction code (D/E)
IMDG/IMO Class	UN 1263	PAINT	3 	III	No	Emergency schedules (EmS) F-E, S-E
ICAO/IATA Class	UN 1263	PAINT	3 	III	No	-

15. Regulatory information

EU regulations: The product is classified and labeled for supply in accordance with EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:
Not applicable.

Other EU regulations

Europe inventory: At least one component is not listed

Black List Chemicals: Not listed

Priority List Chemicals: Not determined

Industrial emissions (integrated pollution prevention and control) – Air: Listed

Industrial emissions (integrated pollution prevention and control) – Water: Not listed

Industrial use: 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.

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16. Other information

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

EUH statement = CLP-specific Hazard statement

RRN = REACH Registration Number

DNEL = Derived No Effect Level

CEPE Classification: 1

Full text of abbreviated H statements referred to in sections 2 and 3:

H226 Flammable liquid and vapor

H302 Harmful if swallowed

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H320 Causes eye irritation

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H372 Cause damage to organs through prolonged or repeated exposure

H373 (hearing organs) May cause damage to organs through prolonged or repeated exposure. (hearing organs)

H402 Harmful to aquatic life

H411 Toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

Full text of classifications [CLP/GHS]:

Aquatic Acute 1, H402 SHORT-TERM AQUATIC HAZARD - Category 1

Aquatic Chronic 2, H411 LONG-TERM AQUATIC HAZARD - Category 2

Aquatic Chronic 3, H412 LONG-TERM AQUATIC HAZARD - Category 3

Acute Tox. 4, H302 ACUTE TOXICITY (Oral) - Category 4

Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4

Skin. Irrit. 1, H314 SKIN CORROSION/IRRITATION - Category 1

Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3

Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2

Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1

Eye Dam. 2B, H320 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B

STOT SE 1, H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

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STOT RE 2, H373 (hearing organs) SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

This Safety Data Sheet is prepared in accordance with according to Regulation (EC) No. 1272/2008 [CLP/GHS].

Notice to whom it may concern:

Your attention and information in this MSDS are based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this MSDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.