

Safety Data Sheet -

1. Chemicals and enterprise identification

Product name and code:

PHILAGARD Chemical Tolerant PHE-CEM - Comp. A

 Application of the substance:
 Two component phenolic epoxy finish

 Product use:
 Coating Solvent-borne

 Colors:
 White, Black, Red, Gray, Green, Ivory, Aluminum, Orange, Yellow, Blue

 Supplier/manufacturer:
 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

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



Safety Data Sheet -

| Hazard classification (GHS) and indication: | | | |
|---|---|------|---|
| Flammable liquids | Category 3 | H226 | Flammable liquid and vapour |
| 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 |
| 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 |
| Aquatic environmental hazard/Long-term | Category 2 | H411 | Toxic to aquatic life with long lasting effects |

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 -

3. Ingredient/composition information

| Chemical name | Notes | Cas number | EC number | % by weight | Classification |
|---------------------------------------|-------|------------|-----------|----------------|--|
| xylene | С | 1330-20-7 | 215-535-7 | 10-25 | Flam. Liq. 3, H226, Acute Tox. 4, H312, Acute Tox. |
| | | | | | 4, H332 Skin. Irrit. 2, H315 Eye Irrit. 2, H319 |
| Bisphenol F diglycidyl ether resin | - | 28064-14-4 | - | 25-50 | Eye Irrit. 2, H319 Skin. Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411 |
| 2-methylpropan-1-ol | 6 | 78-83-1 | 201-148-0 | 2.5-10 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 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.

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.

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 ·

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, have to work inside the spray booth, ventilation is unlikely to be sufficient 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 by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

Ingredient name & Occupational exposure limits

Xylene:

EH40/2005-WELs (12/2011). Absorbed through skin.

STEL: 441 mg/m³ 15 minute(s).

STEL: 100 ppm 15 minute(s).

TWA: 220 mg/m³ 8 hour(s).

TWA: 50 ppm 8 hour(s).

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

2-Methylpropan-1-ol:

EH40/2005-WELs (12/2011).

STEL: 231 mg/m³ 15 minute(s).

STEL: 75 ppm 15 minute(s).

TWA: 154 mg/m³ 8 hour(s).

TWA: 50 ppm 8 hour(s).

Derived effect levels

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|-------------------------|------|----------------------|----------------------------|------------|----------|
| xylene | DNEL | Long term Inhalation | g term Inhalation 77 mg/m³ | | Systemic |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| 2-Methylpropan-1-ol | DNEL | Long term Inhalation | 310 mg/m³ | Workers | Local |

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 | - |
| 2-Methylpropan-1-ol | Fresh water | 0.40 mg/l | - |
| | Marine water | 0.04 mg/l | - |
| | Fresh water sediment | 1.52 mg/kg | - |
| | Marine water sediment | 0.152 mg/kg | - |
| | Soil | 0.0699 mg/kg | - |
| | Sewage Treatment Plant | 10.00 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.

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

9. Physical and chemical properties

Physical state: Liquid.
Odor: Characteristic.
Color: Various colors.
Flash point: Closed cup: 26°C (78.8°F)
Density at 20 °C: 1450 kg/m³
Relative density at 20 °C: 1.45
Explosion limits: N/A
Solubility: Insoluble in the following materials: cold water and hot water.
V.O.C. (Supply): 23 % weight
V.O.C. density at 20 °C: 333.5 kg/m³ (333.5 g/L)

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 | Fish - Bluegill -Lepomis | 96 hours |
| | | 16114 ug/L Fresh water | macrochirus-1.1g | |
| Bisphenol F diglycidyl | | Acute LC50 1-10 mg/L | Fish | 96 hours |
| ether resin | | Acute EC50 1-10 mg/L | Crustacea | |
| | | Acute EC50 1-10 mg/L | Algae | |
| 2-Methylpropan-1-ol | Population | Acute EC50 230000 ug/L | Algae | 48 hours |
| | Intoxication | Acute EC50 1439000 ug/L | Daphnia | 48 hours |
| | | Fresh water | | |
| | Mortality | Acute LC50 1480000 to | Fish - Bluegill -Lepomis | 96 hours |
| | | 1730000 ug/L Fresh water | macrochirus-1.1g | |

Ecological information

Biodegradability

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



Safety Data Sheet -

Bio accumulative potential

| Product/ingredient name | LogKow | BCF | Potential |
|-------------------------|--------|-------------|-----------|
| xylene | 3.12 | 8.1 to 25.9 | low |
| 2-Methylpropan-1-ol | 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 nonallergic 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: xylene. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|---------------------------|---------|----------|
| Xylene | LC50 (Inhalation) 20 mg/l | Rat | 4 hours |
| | LD50 (Oral) 4300 mg/kg | Rat | - |
| | TDLo (Dermal) 4300 mg/kg | Rabbit | - |
| 2-Methylpropan-1-ol | LD50 (Oral) 3100 mg/kg | Rat | 4 hours |
| | LD50 (Dermal) 3392 mg/kg | Rabbit | - |

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.

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.

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 -

International transport regulations

| | UN | Proper | Transport hazard | Packing | Environmental | Additional information |
|-----------|---------|----------|------------------|---------|---------------|-----------------------------|
| | Number | shipping | class(es) | group | hazards | |
| | | name | | | | |
| ADR/RID | UN 1263 | PAINT | 3 | Ш | Yes | The environmentally |
| Class | | | | | | hazardous substance |
| | | | | | | mark is not required when |
| | | | | | | transported in sizes of ≤5 |
| | | | | | | L or ≤5 kg. Tunnel |
| | | | | | | restriction code (D/E) |
| IMDG/IMO | UN 1263 | PAINT | 3 | Ш | Yes | The marine pollutant mark |
| Class | | | | | | is not required when |
| | | | | | | transported in sizes of ≤5 |
| | | | | | | L or ≤5 kg. Emergency |
| | | | | | | schedules (EmS) F-E, S-E |
| ICAO/IATA | UN 1263 | PAINT | 3 | Ш | Yes | The environmentally |
| Class | | | | | | 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

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.

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

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 H304 May be fatal if swallowed and enters airways H312 Harmful in contact with skin H315 Causes skin irritation H317 May cause an allergic skin reaction

- H318 Causes serious eye damage
- H319 Causes serious eye irritation
- H332 Harmful if inhaled
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H411 Toxic to aquatic life with long-lasting effects

Full text of classifications [CLP/GHS]:

Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4 Aquatic Chronic 2, H411 LONG-TERM AQUATIC HAZARD - Category 2 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 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 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].



Safety Data Sheet -

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.



Safety Data Sheet

1. Chemicals and enterprise identification

Product name and code: PHILAGARD Chemical Tolerant PHE-CEM Hardener Comp. B

| Application of the substance: | |
|-------------------------------|--|
| Product use: | |

Two component epoxy finish Coating Hardener / Solvent-borne

Supplier/manufacturer:

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

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



Safety Data Sheet -

| 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 |
| Acute toxicity/Inhalation (Dust and Mists) | Category 4 | H332 | Harmful if inhaled |
| Skin corrosion/irritation | Category 1 | H314 | Causes severe skin burns and eye damage |
| 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 |
| Aquatic environmental hazards/Chronic | Category 3 | H412 | Harmful to aquatic life with long lasting effects |

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 -

3. Ingredient/composition information

| Chemical name | Notes | Cas number | EC number | % by weight | Classification |
|---------------------------|-------|------------|-----------|-------------|-------------------------------|
| xylene | | | | | Flam. Liq. 3, H226, Acute |
| | С | 1330-20-7 | 215-535-7 | 10 - 25 | Tox. 4, H312, Acute Tox. 4, |
| | C | 1330-20-7 | 210-000-7 | 10 - 25 | H332 Skin. Irrit. 2, H315 Eye |
| | | | | | Irrit. 2, H319 |
| benzyl alcohol | | | | | Acute Tox. 4, H302 Acute |
| | - | 100-51-6 | 202-859-9 | 25 - 50 | Tox. 4, H332 Eye Irrit. 2, |
| | | | | | H319 |
| 3-aminomethyl-3,5,5- | | | | | Acute Tox. 4, H302 Acute |
| trimethylcyclohexylamine | | 2855-13-2 | 220-666-8 | 25 - 50 | Tox. 4, H312 Aquatic Chronic |
| | | 2000-10-2 | 220-000-0 | 25 - 50 | 3, H412 Skin Corr. 1B, H314 |
| | | | | | Skin Sens. 1B, H317 |
| 2,4,6- | | | | | Aguto Tox 4 H202 Evo Irrit |
| tris(dimethylaminomethyl) | | 90-72-2 | 202-013-9 | 2.5 - 10 | Acute Tox. 4, H302 Eye Irrit. |
| phenol | | | | | 2, H319 Skin Irrit. 2, H315 |

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.

6. Accidental release measures

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 -

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

Xylene: EH40/2005-WELs (12/2011). Absorbed through skin.

STEL: 441 mg/m³ 15 minute(s).

STEL: 100 ppm 15 minute(s).

TWA: 220 mg/m³ 8 hour(s).

TWA: 50 ppm 8 hour(s).



Safety Data Sheet -

Derived effect levels

| Product/ingredient name | Туре | Exposure | Value | Population | Effects |
|---------------------------|------|----------------------|------------------------|------------|----------|
| xylene | DNEL | Long term Inhalation | 77 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| benzyl alcohol | DNEL | Long term Inhalation | 90 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 9.5 mg/kg | Workers | Systemic |
| 2,4,6- | DNEL | Long term Inhalation | 0.31 mg/m ³ | Workers | Systemic |
| tris(dimethylaminomethyl) | | | | | |
| phenol | | | | | |

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 | - |
| benzyl alcohol | Fresh water | 1.0 mg/l | - |
| | Marine water | 0.10 mg/l | - |
| | Fresh water sediment | 5.27 mg/kg | - |
| | Marine water sediment | 0.527 mg/kg | - |
| | Soil | 0.456 mg/kg | - |
| | Sewage Treatment Plant | 39.0 mg/l | - |
| 3-aminomethyl-3,5,5- | Fresh water | 0.06 mg/l | - |
| trimethylcyclohexylamine | Marine water | 0.006 mg/l | - |
| | Fresh water sediment | 5.784 mg/kg | - |
| | Marine water sediment | 0.578 mg/kg | - |
| | Soil | 1.121 mg/kg | - |
| | Sewage Treatment Plant | 3.18 mg/l | - |
| 2,4,6- | Fresh water | 0.084 mg/l | - |
| tris(dimethylaminomethyl) | Marine water | 0.0084 mg/l | - |
| phenol | Fresh water sediment | N/A | - |
| | Marine water sediment | N/A | - |
| | Soil | N/A | - |
| | Sewage Treatment Plant | 0.20 mg/l | - |

Personal protective equipment

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 ·

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 Color: Clear Odor: Characteristic Flash point: Closed cup: 25°C (77°F) Density at 20 °C: 953 kg/m³ Relative density at 20 °C: 0.953 Dynamic viscosity at 20 °C: 878.95 cP Kinematic viscosity at 20 °C: 922.33 cSt Explosion limits: N/A Solubility: Insoluble in the following materials: cold water and hot water. V.O.C. (Supply): 21.4 % weight V.O.C. density at 20 °C: 203.94 kg/m³ (203.94 g/L)

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

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 -

Aquatic ecotoxicity

| Product/ingredient name | Test | Result | Species | Exposure |
|---------------------------|-----------|---------------------|------------------|----------|
| xylene | Mortality | Acute LC50 12000 to | Fish - Bluegill | 96 hours |
| | | | -Lepomis | |
| | | | macrochirus-1.1g | |
| benzyl alcohol | | Acute EC50 230 mg/l | Daphnia | 48 hours |
| | | Acute IC50 770 mg/l | Algae | 72 hours |
| | | Acute LC50 460 mg/l | Fish | 96 hours |
| 3-aminomethyl-3,5,5- | | Acute EC50 388 mg/l | Crustacea | 48 hours |
| trimethylcyclohexylamine | | Acute LC50 110 mg/l | Fish | 96 hours |
| 2,4,6- | | Acute LC50 345 mg/l | Fish | 96 hours |
| tris(dimethylaminomethyl) | | | | |
| phenol | | | | |

Ecological information

Biodegradability

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

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 |
| 2,4,6-tris(dimethylaminomethyl) | 0.77 | 3 | Low |
| phenol | | | |

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.

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 ·

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 nonallergic 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: xylene. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Exposure |
|---------------------------------|---------------------------|---------|----------|
| Xylene | LC50 (Inhalation) 20 mg/l | Rat | 4 hours |
| | LD50 (Oral) 4300 mg/kg | Rat | |
| | TDLo (Dermal) 4300 mg/kg | Rabbit | |
| benzyl alcohol | LC50 Inhalation Dusts and | Rat | 4 hours |
| | mists >4178 mg/m³ | | |
| | LD50 Oral 1620 mg/kg | Rat | |
| 3-aminomethyl-3,5,5- | LD50 (Oral) 1030 mg/kg | Rat | 4 hours |
| trimethylcyclohexylamine | LD50 (Dermal) 1100 mg/kg | Rat | |
| 2,4,6-tris(dimethylaminomethyl) | LD50 (Oral) 1200 mg/kg | Rat | 4 hours |
| phenol | | | |

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.

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.

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 ·

| nternational t | ransport reg | <u>ulations</u> | | | | |
|----------------|--------------|-----------------|------------------|---------|---------------|-----------------------------|
| | UN | Proper | Transport hazard | Packing | Environmental | Additional information |
| | Number | shipping | class(es) | group | hazards | |
| | | name | | | | |
| ADR/RID | UN 1263 | PAINT | 3 | Ш | No | The environmentally |
| Class | | | | | | hazardous substance |
| | | | <u></u> | | | mark is not required when |
| | | | | | | transported in sizes of ≤5 |
| | | | | | | L or ≤5 kg. Tunnel |
| | | | | | | restriction code (D/E) |
| IMDG/IMO | UN 1263 | PAINT | 3 | Ш | No | The marine pollutant mark |
| Class | | | | | | is not required when |
| | | | <u></u> | | | transported in sizes of ≤5 |
| | | | | | | L or ≤5 kg. Emergency |
| | | | | | | schedules (EmS) F-E, S-E |
| ICAO/IATA | UN 1263 | PAINT | 3 | Ш | No | The environmentally |
| Class | | | | | | hazardous substance |
| | | | <u></u> | | | 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

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

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

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
H319 Causes serious eye irritation
H332 Harmful if inhaled
H412 Harmful to aquatic life with long lasting effects

Full text of classifications [CLP/GHS]:

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 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 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

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.