

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - United Kingdom: Northern Ireland

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

1.1 Product identifier

Product name : Hempel's Shopprimer E 15274 Base
Product identity : 1527411480
Product type : shopprimer epoxy (base for 2-component product)

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

Field of application : metal industry
Ready-for-use mixture : 15274 65 vol. / 95175 35 vol.
Identified uses : Industrial applications, Used by spraying.

1.3 Details of the supplier of the safety data sheet

Company details : Hempel UK Ltd
Berwyn House, The Pavilions
Llantarnam Park
Cwmbran
South Wales NP44 3FD
Telephone: 01633 833600
hempel@hempel.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation)

01633 833600 (08.00 - 17.00)
See Section 4 of the safety data sheet (first aid measures).

Date of issue : 14 December 2021

Date of previous issue : No previous validation.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225 FLAMMABLE LIQUIDS
Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION
Repr. 2, H361d REPRODUCTIVE TOXICITY
STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)
STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE
Aquatic Chronic 3, H412 LONG-TERM (CHRONIC) AQUATIC HAZARD

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

2.2 Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 - Highly flammable liquid and vapour.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H361d - Suspected of damaging the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention : Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapor, mist or spray.

Hazardous ingredients : toluene

Supplemental label elements : Warning! Contains bis-[4-(2,3-epoxypropoxy)phenyl]propane. May produce an allergic reaction. Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Special packaging requirements

SECTION 2: Hazards identification

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

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 Mixtures

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Type |
|--|--|-----------|--|-------------|
| toluene | REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3 | ≥25 - ≤50 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 | [1] [2] |
| propan-2-ol | REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0 | ≥3 - ≤5 | Asp. Tox. 1, H304 Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | [1] [2] |
| titanium dioxide | REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2 | ≥3 - ≤5 | Carc. 2, H351 (inhalation) | [1] [2] [*] |
| butanone | REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3 | ≥3 - ≤4.2 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 | [1] [2] |
| trizinc bis(orthophosphate) | REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6 | ≥1 - <2.5 | Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] |
| bis-[4-(2,3-epoxipropoxy)phenyl] propane | REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2 | <1 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above. | [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 and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit, see section 8.

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

[*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with diameter ≤ 10 µm not bound within a matrix.

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 breathing is irregular, drowsiness, loss of consciousness or cramps: Call 112 and give immediate treatment (first aid).

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In all cases of doubt, or when symptoms persist, seek medical attention.

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. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.

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.

SECTION 4: First aid measures

| | |
|------------------------------|--|
| Ingestion : | If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat. |
| Protection of first-aiders : | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

| | |
|----------------|---|
| Eye contact : | No known significant effects or critical hazards. |
| Inhalation : | Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. |
| Skin contact : | Causes skin irritation. |
| Ingestion : | Can cause central nervous system (CNS) depression. |

Over-exposure signs/symptoms

| | |
|----------------|---|
| Eye contact : | Adverse symptoms may include the following: pain or irritation watering redness |
| Inhalation : | Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced foetal weight increase in foetal deaths skeletal malformations |
| Skin contact : | Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations |
| Ingestion : | Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations |

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. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

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|-----------------------|--|
| Extinguishing media : | Recommended: alcohol resistant foam, CO ₂ , powders, water spray. Not to be used : waterjet. |
|-----------------------|--|

5.2 Special hazards arising from the substance or mixture

| | |
|---|---|
| Hazards from the substance or mixture : | Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous combustion products : | Decomposition products may include the following materials: carbon oxides phosphorus oxides halogenated compounds metal oxide/oxides |

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

6.3 Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product.

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

7.1 Precautions for safe 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. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used.

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Product/ingredient name | Exposure limit values |
|-------------------------|--|
| toluene | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 384 mg/m ³ 15 minutes. TWA: 191 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes. |
| propan-2-ol | EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 1250 mg/m ³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 999 mg/m ³ 8 hours. TWA: 400 ppm 8 hours. |

SECTION 8: Exposure controls/personal protection

| | |
|----------|---|
| butanone | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 899 mg/m ³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 600 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. |
|----------|---|

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard 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.

Derived effect levels

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|------|----------------------|------------------------|------------|----------|
| toluene | DNEL | Long term Dermal | 384 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 192 mg/m ³ | Workers | Systemic |
| propan-2-ol | DNEL | Long term Dermal | 888 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 500 mg/m ³ | Workers | Systemic |
| butanone | DNEL | Long term Dermal | 1161 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 600 mg/m ³ | Workers | Systemic |
| trizinc bis(orthophosphate) | DNEL | Long term Inhalation | 5 mg/m ³ | Workers | Systemic |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | DNEL | Long term Dermal | 83 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Dermal | 0.75 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 4.93 mg/m ³ | Workers | Systemic |

Predicted effect concentrations

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-----------------------------|---|-----------------|---------------|
| toluene | Fresh water | 0.68 mg/l | - |
| | Marine water | 0.68 mg/l | - |
| | Sewage Treatment Plant | 13.61 mg/l | - |
| | Fresh water sediment | 16.39 mg/kg | - |
| | Marine water sediment | 16.39 mg/kg | - |
| | Soil | 2.89 mg/kg | - |
| propan-2-ol | Fresh water | 140.9 mg/l | - |
| | Marine | 140.9 mg/l | - |
| | Fresh water sediment | 552 mg/kg | - |
| | Marine water sediment | 552 mg/kg | - |
| | Soil | 28 mg/kg | - |
| | Sewage Treatment Plant | 2251 mg/l | - |
| butanone | Fresh water | 55.8 mg/l | - |
| | Marine water | 55.8 mg/l | - |
| | Sewage Treatment Plant | 709 mg/l | - |
| | Sediment | 284.7 mg/kg dwt | - |
| | Soil | 22.5 mg/kg dwt | - |
| | Fresh water | 20.6 µg/l | - |
| trizinc bis(orthophosphate) | Marine water | 6.1 µg/l | - |
| | Fresh water sediment | 117.8 mg/kg dwt | - |
| | Marine water sediment | 56.5 mg/kg dwt | - |
| | Soil | 35.6 mg/kg dwt | - |
| | Sewage Treatment Plant | 52 µg/l | - |
| | bis-[4-(2,3-epoxipropoxy)phenyl]propane | Fresh water | 0.006 mg/l |
| Fresh water sediment | | 0.341 mg/kg dwt | - |
| Soil | | 0.065 mg/kg dwt | - |
| Marine water | | 0.001 mg/l | - |
| Sewage Treatment Plant | | 10 mg/l | - |
| Fresh water sediment | | 0.341 mg/kg dwt | - |
| Marine water sediment | | 0.034 mg/kg dwt | - |

8.2 Exposure controls

Appropriate engineering controls

Arrange sufficient ventilation by local exhaust ventilation and good general ventilation to keep the airborne concentrations of vapors or dust lowest possible and below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Individual protection measures

SECTION 8: Exposure controls/personal protection

| | |
|--------------------------|--|
| General : | Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure. |
| Hygiene measures : | Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day. |
| Eye/face protection : | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. |
| Hand protection : | <p>Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.</p> <p>Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:</p> <p>Recommended: Silver Shield / Barrier / 4H gloves, Viton® May be used: polyvinyl alcohol (PVA), nitrile rubber, neoprene rubber, butyl rubber Short term exposure: natural rubber (latex), polyvinyl chloride (PVC)</p> |
| Body protection : | <p>Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.</p> <p>Wear suitable protective clothing. Always wear protective clothing when spraying.</p> |
| Respiratory protection : | <p>Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. If working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. Be sure to use an approved/certified respirator or equivalent.</p> <p>This product contains low-boiling point liquids. Any respiratory protective equipment should be air-fed or organic vapor filter (Type AX).</p> |

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|--|
| Physical state : | Liquid. |
| Colour : | Grey. |
| Odour : | Solvent-like |
| pH : | Testing not relevant or not possible due to nature of the product. |
| Melting point/freezing point : | -95°C This is based on data for the following ingredient: toluene |
| Boiling point/boiling range : | Testing not relevant or not possible due to nature of the product. |
| Flash point : | Closed cup: 4°C (39.2°F) |
| Evaporation rate : | Testing not relevant or not possible due to nature of the product. |
| Flammability : | <p>Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.</p> <p>Highly flammable in the presence of the following materials or conditions: heat and oxidising materials.</p> |
| Lower and upper explosive (flammable) limits : | 1.1 - 12 vol % |
| Vapour pressure : | 3.089 kPa This is based on data for the following ingredient: toluene |
| Vapour density : | Testing not relevant or not possible due to nature of the product. |
| Specific gravity : | 1.329 g/cm ³ |
| Solubility(ies) : | Easily soluble in the following materials: cold water and hot water. |
| Partition coefficient (LogKow) : | Testing not relevant or not possible due to nature of the product. |
| Auto-ignition temperature : | Lowest known value: 404°C (759.2°F) (butanone). |
| Decomposition temperature : | Testing not relevant or not possible due to nature of the product. |
| Viscosity : | Aspiration hazard (H304) Not classified. Testing not relevant due to nature of the product. |

SECTION 9: Physical and chemical properties

Explosive properties : Testing not relevant or not possible due to nature of the product.
 Oxidising properties : Testing not relevant or not possible due to nature of the product.

9.2 Other information

Solvent(s) % by weight : Weighted average: 42 %
 Water % by weight : Weighted average: 0 %
 VOC content : 560.2 g/l
 VOC content, Ready-for-use mixture : 623.4 g/l
 TOC Content : Weighted average: 481 g/l
 Solvent Gas : Weighted average: 0.157 m³/l

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

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials

Highly reactive or incompatible with the following materials: oxidising materials and acids.
 Reactive or incompatible with the following materials: reducing materials.

10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides phosphorus oxides halogenated compounds metal oxide/oxides

SECTION 11: Toxicological information

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

Exposure to component solvent vapor concentrations 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 headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, 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. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|---------------------------------|---------|-------------|----------|
| toluene | LC50 Inhalation Vapour | Rat | >20 mg/l | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |
| propan-2-ol | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Intraperitoneal | Rabbit | 667 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| | LDLo Oral | Human | 3570 mg/kg | - |
| titanium dioxide | LC50 Inhalation Dusts and mists | Rat | >6.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| butanone | LD50 Dermal | Rabbit | 6480 mg/kg | - |
| trizinc bis(orthophosphate) | LD50 Oral | Rat | >5000 mg/kg | - |
| bis-[4-(2,3-epoxipropoxy)phenyl] propane | LD50 Dermal | Rabbit | 20 g/kg | - |

SECTION 11: Toxicological information

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 |
|---|------------|---------------|------------------------|---------------------------|-----------------------------------|
| butanone bis-[4-(2,3-epoxipropoxi)phenyl]propane | | 6480 20000 | | | |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure |
|---|--------------------------|---------|-------|--------------------------------------|
| toluene | Eyes - Mild irritant | Rabbit | - | 0.5 minutes 100 milligrams |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 milligrams |
| propan-2-ol | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams |
| titanium dioxide | Skin - Mild irritant | Human | - | 72 hours 300 Micrograms Intermittent |
| butanone | Skin - Mild irritant | Rabbit | - | 24 hours 402 milligrams |
| bis-[4-(2,3-epoxipropoxi)phenyl] propane | Skin - Irritant | Rabbit | - | - |
| | Eyes - Irritant | Rabbit | - | - |

Sensitiser

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|---------|-------------|
| bis-[4-(2,3-epoxipropoxi)phenyl] propane | skin | Mouse | Sensitising |

Mutagenic effects

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

No known significant effects or critical hazards.

Teratogenic effects

Suspected of damaging the unborn child.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------|
| toluene | Category 3 | | Narcotic effects |
| propan-2-ol | Category 3 | | Narcotic effects |
| butanone | Category 3 | | Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| toluene | Category 2 | - | - |

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| toluene | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitisation : Contains bis-[4-(2,3-epoxipropoxi)phenyl]propane. May produce an allergic reaction.

11.2 Information on other hazards

Endocrine disrupting properties : No known data available in our database.

Other information : No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses. Harmful to aquatic life with long lasting effects.

| Product/ingredient name | Result | Species | Exposure |
|--|---------------------------------------|---|----------|
| toluene | Chronic NOEC <500000 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| titanium dioxide | Chronic NOEC 1000 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| butanone | Acute LC50 >100 mg/l | Daphnia | 48 hours |
| trizinc bis(orthophosphate) | Acute LC50 >100 mg/l | Fish | 96 hours |
| bis-[4-(2,3-epoxipropoxy)phenyl] propane | Acute EC50 308 mg/l | Daphnia | 48 hours |
| | Acute EC50 0.8 mg/l | Algae | 72 hours |
| | Acute EC50 2.44 mg/l | Daphnia | 48 hours |
| | Acute EC50 9.4 mg/l | Algae | 72 hours |
| | Acute EC50 2.1 mg/l | Daphnia | 48 hours |
| | Acute LC50 1.3 mg/l | Fish | 96 hours |

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|---|-----------------------------|----------|----------|
| toluene | - | 100 % - Readily - 14 days | - | - |
| propan-2-ol | - | 86 % - 14 days | 100 mg/l | - |
| butanone | - | 98 % - Readily - 28 days | - | - |
| | - | 89 % - 20 days | - | - |
| bis-[4-(2,3-epoxipropoxy)phenyl] propane | OECD 301F Ready Biodegradability - Manometric Respirometry Test | 5 % - Not readily - 28 days | - | - |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| toluene | - | - | Readily |
| propan-2-ol | - | - | Readily |
| butanone | - | - | Readily |
| bis-[4-(2,3-epoxipropoxy)phenyl] propane | - | - | Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-----------------------------|--------------------|-------|-----------|
| toluene | 2.73 | 90 | low |
| propan-2-ol | 0.05 | 3 | low |
| butanone | 0.3 | 3 | low |
| trizinc bis(orthophosphate) | - | 60960 | high |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : No known data available in our database.

Mobility : No known data available in our database.

12.5 Results of PBT and vPvB assessment

| Product/ingredient name | PBT | P | B | T | vPvB | vP | vB |
|---|-----|---|---|---|------|----|----|
| This mixture does not contain any substances that are assessed to be a PBT or a vPvB. | | | | | | | |

12.6 Endocrine disrupting properties

No known data available in our database.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The generation of waste should be avoided or minimised wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

European waste catalogue no. (EWC) is given below.




European waste catalogue (EWC) : 08 01 11*

Packaging

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.

SECTION 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

| | 14.1 UN / ID no. | 14.2 Proper shipping name | 14.3 Transport hazard class(es) | 14.4 PG* | 14.5 Env* | Additional information |
|----------------------|---------------------|------------------------------|--|-------------|--------------|---|
| ADR/RID Class | UN1263 | PAINT | 3  | II | No. | Special provisions 640 (D) Tunnel code (D/E) |
| IMDG Class | UN1263 | PAINT | 3  | II | No. | Emergency schedules F-E, S-E |
| IATA Class | UN1263 | PAINT | 3  | II | No. | - |

PG* : Packing group

Env.* : Environmental hazards

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.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorisation - Substances of very high concern

Annex XIV

None of the components are listed.

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

Seveso category This product is controlled under the Seveso III Directive.

Seveso category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b

15.2 Chemical safety assessment

SECTION 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
 PNEC = Predicted No Effect Concentration

Full text of abbreviated H statements :

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.
 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.
 EUH066 Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS] :

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
 Carc. 2 CARCINOGENICITY - Category 2
 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
 Flam. Liq. 2 FLAMMABLE LIQUIDS - Category 2
 Repr. 2 REPRODUCTIVE TOXICITY - Category 2
 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

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|---|-----------------------|
| FLAMMABLE LIQUIDS | On basis of test data |
| SKIN CORROSION/IRRITATION | Calculation method |
| REPRODUCTIVE TOXICITY | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE | Calculation method |
| LONG-TERM (CHRONIC) AQUATIC HAZARD | Calculation method |

Notice to reader

Indicates information that has changed from previously issued version.

The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical performance or suitability for particular applications.

It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.

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 and labels.

General description of the process covered

Indoor spray painting by professionals with efficient ventilation such as spray booth or local exhaust ventilation

This safe use information is linked to : Professional spray painting, near-industrial setting - Level II
HMP I/PW 01b

Sector(s) of use : Industrial uses - Professional uses

Product category(ies) : Coatings and paints, thinners, paint removers

Operational conditions

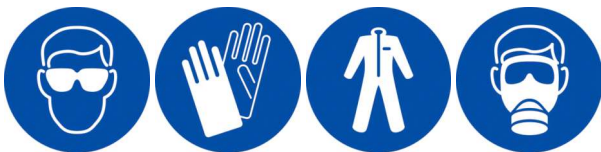
Place of use : Indoor use

Range of application/Process conditions : Assumes a good standard of occupational hygiene and safety management has been implemented.

Risk management measures (RMM)

| Contributing activity | Process category (ies) | Maximum duration | Ventilation | | Respiratory | Eye | Hands |
|---|------------------------|-------------------|--|---------------------------------------|--|---|---|
| | | | Type | air changes per hour | | | |
| Preparation of material for application | PROC05 | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Loading of application equipment and handling of coated parts before curing | PROC08b | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Industrial application of coatings by spraying | PROC07 | More than 4 hours | Local exhaust ventilation | Refer to relevant technical standards | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Film formation - force drying, stoving and other technologies | PROC04 | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Cleaning | PROC05 | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| Waste management | PROC08b | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with 'basic' employee training. |

See chapter 8 of this Safety Data Sheet for specifications.



Safe Use of Mixture Information

Hempel's Shopprimer E 15274 Base



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 and labels.

General description of the process covered

Indoor painting by professionals by dipping or with brush, roller, putty knife etc. with enhanced ventilation or local exhaust ventilation (LEV)

This safe use information is linked to : Professional low-energy painting, near-industrial setting - Level I
HMP I/PW 02a

Sector(s) of use : Industrial uses - Professional uses

Product category(ies) : Coatings and paints, thinners, paint removers

Operational conditions

Place of use : Indoor use

Range of application/Process conditions : Assumes a good standard of occupational hygiene and safety management has been implemented.

Risk management measures (RMM)

| Contributing activity | Process category (ies) | Maximum duration | Ventilation | | Respiratory | Eye | Hands |
|---|------------------------|-------------------|--|---------------------------------------|--|---|---------------------------------------|
| | | | Type and air changes per hour | | | | |
| Preparation of material for application | PROC05 | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Loading of application equipment and handling of coated parts before curing | PROC08b | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Industrial application of coatings by other than spraying | PROC10 | More than 4 hours | Local exhaust ventilation | Refer to relevant technical standards | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Film formation - force drying, stoving and other technologies | PROC04 | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | None | None |
| Cleaning | PROC05 | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Waste management | PROC08b | More than 4 hours | Enhanced (mechanical) room ventilation | 5 - 10 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |

See chapter 8 of this Safety Data Sheet for specifications.



Safe Use of Mixture Information

Hempel's Shopprimer E 15274 Base



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 and labels.

General description of the process covered

Outdoor spray painting by professionals for specialist applications, with respiratory protection

Wear suitable coveralls to prevent exposure to the skin. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

This safe use information is linked to : Professional spray painting, near-industrial setting - Level VII
HMP I/PW 05g

Sector(s) of use : Industrial uses - Professional uses

Product category(ies) : Coatings and paints, thinners, paint removers

Operational conditions

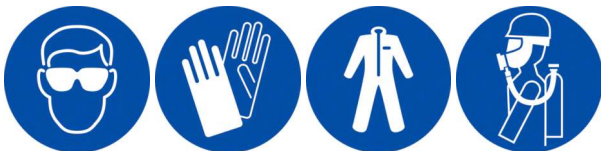
Place of use : Outdoor use

Range of application/Process conditions : Assumes a good standard of occupational hygiene and safety management has been implemented.
Assumes that activities are undertaken with appropriate and well maintained equipment by trained personnel operating under supervision.

Risk management measures (RMM)

| Contributing activity | Process category (ies) | Maximum duration | Ventilation | | Respiratory | Eye | Hands |
|---|------------------------|------------------|-------------|--------------------------|---|---|--|
| | | | Type | and air changes per hour | | | |
| Preparation of material for application | PROC05 | 1 to 4 hours | Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Loading of application equipment and handling of coated parts before curing | PROC08b | 1 to 4 hours | Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Industrial application of coatings by spraying | PROC07 | 1 to 4 hours | Outdoors | 3 - 5 | Use a properly fitted, air-purifying or air-fed respirator. EN 14594 with an assigned protection factor of at least 20. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Film formation - force drying, stoving and other technologies | PROC04 | 1 to 4 hours | Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Cleaning | PROC05 | 1 to 4 hours | Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |
| Waste management | PROC08b | 1 to 4 hours | Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. |

See chapter 8 of this Safety Data Sheet for specifications.



Safe Use of Mixture Information

Hempel's Shopprimer E 15274 Base



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 and labels.

General description of the process covered

Outdoor painting by professionals by dipping or with brush, roller, putty knife etc.

This safe use information is linked to : Professional low-energy painting, near-industrial setting - Level II
HMP I/PW 06b

Sector(s) of use : Industrial uses - Professional uses

Product category(ies) : Coatings and paints, thinners, paint removers

Operational conditions

Place of use : Outdoor use

Range of application/Process conditions : Assumes a good standard of occupational hygiene and safety management has been implemented.

Risk management measures (RMM)

| Contributing activity | Process category (ies) | Maximum duration | Ventilation | | Respiratory | Eye | Hands |
|---|------------------------|-------------------|-------------|----------------------|--|---|---------------------------------------|
| | | | Type | air changes per hour | | | |
| Preparation of material for application | PROC05 | More than 4 hours | Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Loading of application equipment and handling of coated parts before curing | PROC08b | More than 4 hours | Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Industrial application of coatings by other than spraying | PROC10 | More than 4 hours | Outdoors | 3 - 5 | Wear a respirator conforming to EN140 with an assigned protection factor of at least 10. | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Film formation - force drying, stoving and other technologies | PROC04 | More than 4 hours | Outdoors | 3 - 5 | None | None | None |
| Cleaning | PROC05 | More than 4 hours | Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Waste management | PROC08b | More than 4 hours | Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |

See chapter 8 of this Safety Data Sheet for specifications.

