

1.4 Emergency telephone number

+45 45 93 38 00 (08.00 - 17.00)

See section 4 First aid measures.

Emergency telephone number (with hours of operation)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878 - Europe

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

1.1 Product identifier

Product name: Hempel's High Protect II Base

Product identity: 3578913700

Product type: epoxy paint (base for 2-component product)

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

Field of application : used only as part of two- or multi component products.

Ready-for-use mixture : 35780 = 35789 3 vol. / 95078 2 vol.

Identified uses: Consumer applications, Professional applications.

1.3 Details of the supplier of the safety data sheet

Company details : HEMPEL A/S

Lundtoftegårdsvej 91 DK-2800 Kgs. Lyngby

Denmark

Tel.: + 45 45 93 38 00 hempel@hempel.com 18 November 2022

Date of issue : 18 November 2022

Date of previous issue : 13 November 2021.

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]

Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION

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

Skin Sens. 1, H317 SKIN SENSITIZATION

Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM)
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :





Signal word: Warning

Hazard statements: H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements:

General: Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention: Wear protective gloves. Wear eye or face protection. Avoid release to the environment. Avoid

breathing vapor. Wash thoroughly after handling.

Response: Collect spillage. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with

plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. If eye irritation persists: Get medical advice or attention.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international

regulations.

Hazardous ingredients: prisphenol A-(epichlorhydrin) epoxy resin MW =< 700

formaldehyde, polymer with (chloromethyl)oxirane and phenol

1,6-hexanediol diglycidylether

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

Supplemental label elements: Contains epoxy constituents. May produce an allergic reaction.

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SECTION 2: Hazards identification

Special packaging requirements

Containers to be fitted with child-

Not applicable.

resistant fastenings:

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 None known.

in classification:

SECTION 3: Composition/information on ingredients

3.2 Mixtures

| Product/ingredient name | Identifiers | % | Regulation (EC) N | lo. 1272/2008 [CLP] | Туре |
|---|--|-----------|--|---|-------------|
| prsphenol A-(epichlorhydrin) epoxy resin MW =< 700 | REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 1675-54-3 Index: 603-074-00-8 | ≥25 - ≤50 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5% | [1] |
| formaldehyde, polymer with (chloromethyl)oxirane and phenol | REACH #: 01-2119454392-40 EC: 500-006-8 CAS: 9003-36-5 | ≥10 - ≤25 | Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | - | [1] |
| 1,6-hexanediol diglycidylether | REACH #: 01-2119463471-41 EC: 240-260-4 CAS: 933999-84-9 | ≥5 - ≤10 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412 | - | [1] |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | REACH #: 01-2119485289-22 EC: 271-846-8 CAS: 68609-97-2 Index: 603-103-00-4 | ≥5 - ≤10 | Skin Irrit. 2, H315 Skin Sens. 1, H317 | - | [1] |
| bis(isopropyl)naphthalene | REACH #: 01-2119565150-48 EC: 254-052-6 CAS: 38640-62-9 | ≥5 - ≤10 | Asp. Tox. 1, H304 Aquatic Chronic 1, H410 | M [Chronic] = 1 | [1] |
| amide wax | REACH #: 01-0000017860-69 EC: 432-430-3 | ≥1 - ≤3 | Aquatic Chronic 4, H413 | - | [1] |
| C12-14 alcohols | EC: 279-420-3 CAS: 80206-82-2 | ≤0.3 | Skin Irrit. 2, H315 Aguatic Acute 1, H400 | M [Acute] = 1 | [1] |
| 4,4'-isopropylidenediphenol | REACH #: 01-2119457856-23 EC: 201-245-8 CAS: 80-05-7 Index: 604-030-00-0 | <0.1 | Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | M [Acute] = 1 M [Chronic] = 10 | [1] [2] [3] |
| | | | See Section 16 for the full text above. | of the H statements declared | |

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

Substance classified with a health or environmental hazard

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

[3] Substance of equivalent concern

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. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. 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

recognized skin cleanser. Do NOT use solvents or thinners.

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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. It may be dangerous to

the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly

with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Causes serious eye irritation.

Inhalation: No known significant effects or critical hazards.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion: No specific data.

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

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

Not to be used: waterjet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or

mixture :

In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic 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

Decomposition products may include the following materials: carbon oxides halogenated compounds

metal oxide/oxides

5.3 Advice for firefighters

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

Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training.

6.2 Environmental precautions

Avoid dispersal of spilled 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. May be harmful to the environment if released in large quantities.

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SECTION 6: Accidental release measures

6.3 Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach 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). Contaminated absorbent material may pose the same hazard as the spilled 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

Contains epoxy constituents. Avoid all possible skin contact with epoxy and amine containing products, they may cause allergic reactions. 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 |
|-----------------------------|---|
| 4,4'-isopropylidenediphenol | EU OEL (Europe, 1/2022). TWA: 2 mg/m³ 8 hours. Form: Inhalable fraction |

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

Not applicable.

Predicted effect concentrations

Not applicable.

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

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.

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SECTION 8: Exposure controls/personal protection





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: 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.

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:

Short term exposure: natural rubber (latex)

Recommended: Silver Shield / Barrier / 4H gloves, butyl rubber, Viton®

May be used: polyvinyl alcohol (PVA), polyvinyl chloride (PVC), nitrile rubber, neoprene rubber

Body protection: Personal protective equipment for the body should be selected based on the task being performed and

the risks involved handling this product.

Respiratory protection : 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. Wear appropriate respirator when ventilation is inadequate. Be sure to use approved/certified respirator or equivalent. It is not possible to specify precise filter type, since the actual work situation is unknown. Supplier of respirators should be

contacted in order to find the appropriate filter.

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.

Color : Gray

Odor : Amine-like.

pH: Testing not relevant or not possible due to nature of the product.

Melting point/freezing point: -16°C This is based on data for the following ingredient: bisphenol A-(epichlorhydrin) epoxy resin MW =

< 700

Boiling point/boiling range: Testing not relevant or not possible due to nature of the product.

Flash point : Closed cup: 143°C (289.4°F)

Evaporation rate: Testing not relevant or not possible due to nature of the product.

Flammability: Not available.

Lower and upper explosive No specific data.

(flammable) limits :

Vapor pressure: 0 kPa This is based on data for the following ingredient: bisphenol A-(epichlorhydrin) epoxy resin MW =

< 700

Vapor density: Testing not relevant or not possible due to nature of the product.

Specific gravity: 1.26 g/cm³

Partition coefficient (LogKow): Testing not relevant or not possible due to nature of the product.

Auto-ignition temperature: Testing not relevant or not possible due to nature of the product.

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.

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

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

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SECTION 9: Physical and chemical properties

9.2 Other information

Solvent(s) % by weight: Weighted average: 1 % Water % by weight: Weighted average: 0 %

VOC content : 11.1 g/l
VOC content, Ready-for-use 34.1 g/l

mixture:

TOC Content: Weighted average: 8 g/l
Solvent Gas: Weighted average: 0.002 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

No specific data.

10.5 Incompatible 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 halogenated compounds metal oxide/oxides

SECTION 11: Toxicological information

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

Epoxy and amine containing products can cause skin disorders such as allergic eczema. The allergy may arise after only a short exposure period.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|---------|-------------|----------|
| pisphenol A-(epichlorhydrin) epoxy resin MW =< 700 | LD50 Dermal | Rabbit | >2000 mg/kg | - |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| formaldehyde, polymer with (chloromethyl)oxirane and phenol | LD50 Dermal | Rabbit | >2000 mg/kg | - |
| | LD50 Oral | Rat | >2000 mg/kg | - |
| 1,6-hexanediol diglycidylether | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 2190 mg/kg | - |
| oxirane, mono[(C12-14-alkyloxy) methyl] derivs. | LD50 Dermal | Rat | >4500 mg/kg | - |
| • • | LD50 Oral | Rat | >5000 mg/kg | - |
| bis(isopropyl)naphthalene | LD50 Dermal | Rat | >4000 mg/kg | - |
| , , , , , , | LD50 Oral | Rat | >4000 mg/kg | - |
| 4,4'-isopropylidenediphenol | LD50 Dermal | Rabbit | >2000 mg/kg | - |
| , , , , | LD50 Oral | Rat | 3250 mg/kg | - |
| | LD50 Oral | Rat | 3250 mg/kg | - |

Acute toxicity estimates

| Product/ingredient name | Oral mg/kg | Dermal mg/kg | Inhalation (gases) ppm | Inhalation (vapors) mg/l | Inhalation (dusts and mists) mg/l |
|---|---------------|-----------------|------------------------------|--------------------------------|--|
| 7,6-hexanediol diglycidylether 4,4'-isopropylidenediphenol | 2190 3250 | | | | |

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SECTION 11: Toxicological information

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure |
|---|--------------------------|---------|-------|--------------------------|
| presphenol A-(epichlorhydrin) epoxy resin MW =< 700 | Eyes - Mild irritant | Rabbit | - | - |
| | Skin - Mild irritant | Rabbit | - | - |
| formaldehyde, polymer with (chloromethyl)oxirane and phenol | Skin - Mild irritant | Rabbit | - | 24 hours 500 microliters |
| 1,6-hexanediol diglycidylether | Eyes - Irritant | Rabbit | - | - |
| | Skin - Irritant | Rabbit | - | - |
| oxirane, mono[(C12-14-alkyloxy) methyl] derivs. | Eyes - Mild irritant | Rabbit | - | - |
| | Skin - Moderate irritant | Rabbit | - | - |
| 4,4'-isopropylidenediphenol | Eyes - Severe irritant | Rabbit | - | 24 hours 250 Micrograms |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams |

Sensitizer

| Product/ingredient name | Route of exposure | Species | Result |
|--|-------------------|--------------------------|----------------------------|
| bisphenol A-(epichlorhydrin) epoxy resin MW =< 700 | skin | Guinea pig | Sensitizing |
| 1,6-hexanediol diglycidylether oxirane, mono[(C12-14-alkyloxy) methyl] derivs. | skin skin | Guinea pig Guinea pig | Sensitizing Sensitizing |

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

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-----------------------------|------------|-------------------|------------------------------|
| 4.4'-isopropylidenediphenol | Category 3 | | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|--|----------|-------------------|---------------|
| No known data avaliable in our database. | | | |

Aspiration hazard

| Product/ingredient name | Result |
|---------------------------|--------------------------------|
| bis(isopropyl)naphthalene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitization: Contains bisphenol A-(epichlorhydrin) epoxy resin MW =< 700, formaldehyde, polymer with

(chloromethyl)oxirane and phenol, 1,6-hexanediol diglycidylether, oxirane, mono[(C12-14-alkyloxy)

methyl] derivs.. May produce an allergic reaction.

11.2 Information on other hazards

Endocrine disrupting properties : See Section 15 for details.

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

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SECTION 12: Ecological information

12.1 Toxicity

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

| Product/ingredient name | Result | Species | Exposure |
|---|---------------------------------------|---------------------------------------|----------|
| sphenol A-(epichlorhydrin) epoxy resin MW =< 700 | Acute EC50 >11 mg/l | Algae | 72 hours |
| | Acute EC50 1.8 mg/l | Daphnia | 48 hours |
| | Acute LC50 2 mg/l | Fish | 96 hours |
| formaldehyde, polymer with (chloromethyl)oxirane and phenol | Acute EC50 2.54 mg/l | Fish | 96 hours |
| | Acute LC50 1.8 mg/l | Algae | 72 hours |
| | Acute LC50 2.55 mg/l | Daphnia | 48 hours |
| 1,6-hexanediol diglycidylether | Acute EC50 23.1 mg/l | Algae | 48 hours |
| | Acute LC50 47 mg/l | Daphnia | 48 hours |
| | Acute LC50 30 mg/l | Fish | 96 hours |
| oxirane, mono[(C12-14-alkyloxy) methyl] derivs. | Acute IC50 843.75 mg/l | Algae | 72 hours |
| , . | Acute LC50 5000 mg/l | Fish | 96 hours |
| bis(isopropyl)naphthalene | Acute LC50 1.7 mg/l | Daphnia | 48 hours |
| | Acute NOEC 0.013 mg/l | Daphnia | 21 days |
| 4,4'-isopropylidenediphenol | Acute LC50 7.5 mg/l | Fish | 96 hours |
| | Chronic NOEC 0.8 mg/l Fresh water | Daphnia - Daphnia magna - Neonate | 21 days |
| | Chronic NOEC 0.2 - 20 ppb Fresh water | Fish - Xiphophorus helleri - Juvenile | 60 days |
| | | (Fledgling, Hatchling, Weanling) | |

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---------------------------------|--------|-------------|
| pisphenol A-(epichlorhydrin) epoxy resin MW =< 700 | OECD 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test | 12 % - Not readily - 28 days | - | - |
| formaldehyde, polymer with (chloromethyl)oxirane and phenol | OECD 301B Ready Biodegradability - CO ₂ Evolution Test | 16 % - Not readily - 28 days | - | - |
| 1,6-hexanediol diglycidylether | OECD 301D Ready Biodegradability - Closed Bottle Test | 47 % - Inherent - 28 days | 2 mg/l | - |
| oxirane, mono[(C12-14-alkyloxy) methyl] derivs. | - | 87 % - Readily - 28 days | - | - |
| amide wax | - | <70 % - Not readily - 28 days | _ | _ |
| 4,4'-isopropylidenediphenol | - | 1 - 2 % - Not readily - 28 days | - | - |
| Product/ingredient name | Aquatic half-life | Photolysis | Biode | gradability |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|------------------------------------|-------------------|------------|------------------|
| pisphenol A-(epichlorhydrin) epoxy | - | - | Not readily |
| resin MW =< 700 | | | |
| formaldehyde, polymer with | - | - | Not readily |
| (chloromethyl)oxirane and phenol | | | |
| 1,6-hexanediol diglycidylether | - | - | Inherent |
| oxirane, mono[(C12-14-alkyloxy) | - | - | Readily |
| methyl] derivs. | | | |
| amide wax | - | - | Not readily |
| 4,4'-isopropylidenediphenol | - | - | Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-------------|-----------|
| pisphenol A-(epichlorhydrin) epoxy resin MW =< 700 | 2.64 - 3.78 | 31 | low |
| formaldehyde, polymer with (chloromethyl)oxirane and phenol | 2.7 | 150 | low |
| 1,6-hexanediol diglycidylether | 0.822 | 3.57 | low |
| oxirane, mono[(C12-14-alkyloxy)methyl] derivs. | 3.77 | 160 - 263 | low |
| bis(isopropyl)naphthalene | 6.081 | 1800 - 6400 | high |
| 4,4'-isopropylidenediphenol | 3.4 | | low |

12.4 Mobility in soil

Soil/water partition coefficient

No known data avaliable in our database.

(K_{oc}): Mobility:

No known data avaliable in our database.

12.5 Results of PBT and vPvB assessment

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SECTION 12: Ecological information

| Product/ingredient name | PBT | Р | В | Т | 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

See Section 15 for details.

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 minimized 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.

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

European waste catalogue (EWC): 08 01 11*

Packaging

The generation of waste should be avoided or minimized 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 Tran | sport hazard class(es) | 14.4 PG* | 14.5 Env* | Additional information |
|------------------|---------------------|--|--------------|--|-------------|--------------|---|
| ADR/RID Class | UN3082 | NVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol A-(epichlorhydrin) epoxy resin MW =< 700) | 9 | 1 1 2 2 | III | Yes. | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Tunnel code (-) |
| IMDG Class | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (bisphenol A-(epichlorhydrin) epoxy resin MW =< 700) | 9 | 1 1 2 2 2 3 3 3 3 3 3 3 3 3 3 | III | Yes. | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedules F-A, S-F |
| IATA Class | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol A-(epichlorhydrin) epoxy resin MW =< 700) | 9 | 1 1 1 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 | III | Yes. | This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8. |

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.

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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 authorization - Substances of very high concern

Annex XIV

None of the components are listed.

Substances of very high concern

| Ingredient name | Intrinsic property | Status | Reference number | Date of revision |
|-----------------------------|--|-------------|------------------|------------------|
| 4,4'-isopropylidenediphenol | Toxic to reproduction | Recommended | ED/01/2018 | 10/1/2019 |
| 4,4'-isopropylidenediphenol | Endocrine disrupting properties for human health | Recommended | ED/01/2018 | 10/1/2019 |
| 4,4'-isopropylidenediphenol | Endocrine disrupting properties for environment | Recommended | ED/01/2018 | 10/1/2019 |

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 | |
|--|--|
| E2: Hazardous to the aquatic environment - Chronic 2 | |

15.2 Chemical Safety Assessment

Consumer use: Chemical Safety Assessments for this product are either complete or not applicable.

SECTION 16: Other information

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 : \$\int 304\$ May be fatal if swallowed and enters airways.

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

H360F May damage fertility.
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.
 H413 May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS] : Aquatic Acute 1 AQUATIC HAZARD (ACUTE) - Category 1

Aquatic Chronic 1
Aquatic Chronic 2
Aquatic Chronic 2
Aquatic Chronic 3
Aquatic Chronic 3
Aquatic Chronic 4
AQUATIC HAZARD (LONG-TERM) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 4

Asp. Tox. 1 ASPIRATION HAZARD - Category 1

Eye Dam. 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

Repr. 1B TOXIC TO REPRODUCTION - Category 1B
Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1 SKIN SENSITIZATION - Category 1

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 |
|--|---|
| SERIOUS EYE DAMAGE/ EYE IRRITATION SKIN SENSITIZATION | Calculation method Calculation method Calculation method Calculation method |

Notice to reader

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SECTION 16: Other information

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 preformance 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.

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Safe Use of Mixture Information Hempel's High Protect II 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 or outdoor spray painting by professionals or with brush, roller, putty knife, dipping etc. with good general room ventilation

This safe use information is linked to

: Professional spray painting and/or low-energy painting, local effect - Level II

Skin Sens. 1, Eye Irrit. 2, Asp. Tox. 1 or Solvent.

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

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

Operational conditions

Place of use : Indoor or outdoor use

Risk management measures (RMM)

| Contributing activity | Process | Maximum duration | Ventilation | | Respiratory | Eye | Hands |
|---|-------------------|---------------------|--|-------|--|---|---------------------------------------|
| activity | category (ies) | duration | Type and air changes per hour | | | | |
| Preparation of material for application | PROC05 | More than 4 hours | Good general room ventilation - 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 | PROC08a | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Professional application of coatings by brush or roller | PROC10 | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Professional application of coatings by spraying | PROC11 | More than 4 hours | Good general room ventilation - 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 | Good general room ventilation - Outdoors | 3 - 5 | None | None | None |
| Cleaning | PROC05 | More than 4 hours | Good general room ventilation - Outdoors | 3 - 5 | None | Use eye protection according to EN 166. | Wear suitable gloves tested to EN374. |
| Waste management | PROC08a | More than 4 hours | Good general room ventilation - 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.







