SAFETY DATA SHEET

Date of issue/Date of revision : 21 February 2020 Version : 6.08



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

1.1 Product identifier

Product name : AMERLOCK 2/400 AL BASE ALUMINIUM

Product code : 00286441

Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/ : Coating.

mixture

Uses advised against : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL Tweemontstraat 104 B-2100 Deurne Belgium

Telephone +32-33606311 Fax +32-33606435

e-mail address of person responsible for this SDS

: PMC.Safety@PPG.com

1.4 Emergency telephone number

Supplier

+31 20 4075210

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 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

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

2.2 Label elements

English (GB) United Kingdom (UK) 1/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 2: Hazards identification

Hazard pictograms







Signal word : Warning

Hazard statements: Causes serious eye irritation.

Causes skin irritation.

May cause an allergic skin reaction.
Suspected of causing genetic defects.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention: Wear protective gloves. Wear protective clothing. Wear eye or face protection.

Avoid breathing vapour.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

Storage : Store locked up.

Disposal : Not applicable.

P280, P261, P305 + P351 + P338, P405

Hazardous ingredients : bis-[4-(2,3-epoxipropoxi)phenyl]propane

2,3-epoxypropyl neodecanoate

Supplemental label

elements

: Contains epoxy constituents. May produce an allergic reaction.

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

Special packaging requirements

Containers to be fitted with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB

: 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

: Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

English (GB) United Kingdom (UK) 2/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 3: Composition/information on ingredients

| | | | <u>Classification</u> | |
|--|---|-------------|--|------|
| Product/ingredient name | Identifiers | % by weight | Regulation (EC) No. 1272/2008 [CLP] | Туре |
| bis-[4-(2,3-epoxipropoxi)phenyl] propane | REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2 | ≥50 - ≤75 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 | [1] |
| 2,3-epoxypropyl neodecanoate | REACH #: 01-2119431597-33 EC: 247-979-2 CAS: 26761-45-5 | ≥10 - ≤25 | Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411 | [1] |
| Hydrocarbons, C10-C13, n- alkanes, isoalkanes, cyclics, < 2% aromatics | REACH #: 01-2119457273-39 EC: 918-481-9 CAS: 64742-48-9 (EC 918-481-9) | ≥10 - <20 | Asp. Tox. 1, H304 EUH066 | [1] |
| | | | See Section 16 for the full text of the H statements declared above. | |

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

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [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

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by

trained personnel.

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

: If swallowed, seek medical advice immediately and show the container or label. Ingestion

Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Wash contaminated clothing thoroughly with water before removing it, or wear

gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

United Kingdom (UK) 3/15 English (GB)

Code : 00286441 Date of issue/Date of revision : 21 February 2020

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 4: First aid measures

Skin contact: Causes skin irritation. Defatting to the skin. 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 dryness cracking

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

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

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 products may include the following materials:

carbon oxides metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters

: 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.

Special protective equipment for fire-fighters

: 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.

English (GB) United Kingdom (UK) 4/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

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

6.2 Environmental precautions

: 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. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: 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. Dispose of via a licensed waste disposal contractor. 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

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

7.1 Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

English (GB) United Kingdom (UK) 5/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 7: Handling and storage

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

: Storage temperature: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

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.

DNELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|--|------|-----------------------|------------------------|--------------------------------|----------|
| bis-[4-(2,3-epoxipropoxi)phenyl] propane | DNEL | Long term Inhalation | 12.25 mg/m³ | Workers | Systemic |
| ' | DNEL | Short term Inhalation | 12.25 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 8.33 mg/kg bw/ day | Workers | Systemic |
| | DNEL | Short term Dermal | 8.33 mg/kg bw/ day | Workers | Systemic |
| | DNEL | Long term Dermal | 3.571 mg/kg bw/ day | General population [Consumers] | Systemic |
| | DNEL | Short term Dermal | 3.571 mg/kg bw/ day | General population [Consumers] | Systemic |

English (GB) United Kingdom (UK) 6/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 8: Exposure controls/personal protection

| • | • | • | | | |
|------------------------------|----------------------|---|--|--------------------------------|----------------------------------|
| | DNEL | Long term Oral | 0.75 mg/kg bw/ day | General population [Consumers] | Systemic |
| | DNEL | Short term Oral | 0.75 mg/kg bw/ day | General population [Consumers] | Systemic |
| 2,3-epoxypropyl neodecanoate | DNEL | Long term Dermal | 1.15 mg/kg bw/ day | General population | Systemic |
| | DNEL | Long term Inhalation | 1.6 mg/m³ | General population | Systemic |
| | DNEL DNEL DNEL | Long term Dermal Short term Inhalation Long term Inhalation | 1.9 mg/kg bw/day 2.7 mg/m³ 2.7 mg/m³ | Workers Workers Workers | Systemic Systemic Systemic |

PNECs

| Product/ingredient name | Туре | Compartment Detail | Value | Method Detail |
|--|------------------|---|--|--|
| bis-[4-(2,3-epoxipropoxi)phenyl] propane | - | Fresh water | 0.006 mg/l | Assessment Factors |
| | - - - - | Marine water Fresh water sediment Marine water sediment Soil Sewage Treatment Plant | 0.001 mg/l 0.996 mg/kg dwt 0.1 mg/kg dwt 0.196 mg/kg dwt 10 mg/l | Assessment Factors Equilibrium Partitioning Equilibrium Partitioning Equilibrium Partitioning Assessment Factors |
| | - | Secondary Poisoning | 11 mg/kg | Assessment Factors |

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

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

Eye/face protection

Skin protection

Hand protection

: Chemical splash goggles. Use eye protection according to EN 166.

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Gloves : butyl rubber

English (GB) United Kingdom (UK) 7/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 8: Exposure controls/personal protection

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

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 workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3

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

Appearance

Physical state : Liquid. Colour : White. **Odour** : Aromatic. **Odour threshold** : Not available. pН : insoluble in water.

Melting point/freezing point

: May start to solidify at the following temperature: 8 to 12°C (46.4 to 53.6°F) This is based on data for the following ingredient: bis-[4-(2,3-epoxipropoxi)phenyl] propane. Weighted average: -12.36°C (9.8°F)

Initial boiling point and boiling range

: >37.78°C

: Closed cup: 76°C Flash point

Evaporation rate : 0.04 (Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics)

compared with butyl acetate

Flammability (solid, gas)

Upper/lower flammability or

explosive limits

: liauid

Greatest known range: Lower: 0.6% Upper: 7% (Hydrocarbons, C10-C13, n-

alkanes, isoalkanes, cyclics, < 2% aromatics)

: Highest known value: 0.05 kPa (0.4 mm Hg) (at 20°C) (Hydrocarbons, C10-C13, Vapour pressure

n-alkanes, isoalkanes, cyclics, < 2% aromatics). Weighted average: 0.01 kPa

(0.08 mm Hg) (at 20°C)

Vapour density Highest known value: 11.7 (Air = 1) (bis-[4-(2,3-epoxipropoxi)phenyl]propane).

Relative density

Solubility(ies) : Insoluble in the following materials: cold water.

Partition coefficient: n-octanol/ : Not applicable.

Auto-ignition temperature : Lowest known value: >230°C (>446°F) (Hydrocarbons, C10-C13, n-alkanes,

isoalkanes, cyclics, < 2% aromatics).

Decomposition temperature

: Stable under recommended storage and handling conditions (see Section 7).

Kinematic (40°C): >0.21 cm²/s **Viscosity**

Explosive properties

United Kingdom (UK) 8/15 English (GB)

Code : 00286441 Date of issue/Date of revision : 21 February 2020

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 9: Physical and chemical properties

The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.

Oxidising properties : Product does not present an oxidizing hazard.

9.2 Other information

No additional information.

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 : When exposed to high temperatures may produce hazardous decomposition

products.

Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products

: Depending on conditions, decomposition products may include the following

materials: carbon oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|---------|-------------|----------|
| s-[4-(2,3-epoxipropoxi)phenyl]propane | LD50 Dermal | Rabbit | 23000 mg/kg | - |
| | LD50 Oral | Rat | 15000 mg/kg | - |
| 2,3-epoxypropyl neodecanoate | LD50 Dermal | Rat | 3800 mg/kg | - |
| 7 1 31 13 | LD50 Oral | Rat | 9.6 g/kg | - |
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| , , | LD50 Oral | Rat | >6 g/kg | - |

Conclusion/Summary: There are no data available on the mixture itself.

Acute toxicity estimates

| Route | ATE value |
|----------------|-----------|
| Not available. | |

Irritation/Corrosion

Code : 00286441 Date of issue/Date of revision : 21 February 2020

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 11: Toxicological information

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--|------------------|----------|---------------------|-------------|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Eyes - Redness of the conjunctivae | Rabbit | 0.4 | 24 hours | - |
| | Eyes - Mild irritant Skin - Erythema/ | Rabbit Rabbit | - 0.8 | 24 hours 4 hours | - |
| | Eschar Skin - Oedema | Rabbit | | 4 hours | |
| | Skin - Oederna Skin - Mild irritant | Rabbit | - | 4 hours | - |

Conclusion/Summary

Skin
There are no data available on the mixture itself.
Eyes
There are no data available on the mixture itself.
Respiratory
There are no data available on the mixture itself.

Sensitisation

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

Conclusion/Summary

Skin: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

| Product/ingredient name | Result |
|---|--------------------------------|
| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure

: Not available.

Potential acute health effects

Inhalation : No known significant effects or critical hazards.Ingestion : No known significant effects or critical hazards.

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

Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : No specific data.

English (GB) United Kingdom (UK) 10/15

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 11: Toxicological information

Ingestion : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness dryness cracking

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

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

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Long term exposure

Potential immediate

: Not available.

effects

Potential delayed effects: Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/

or dermatitis. Once sensitized, a severe allergic reaction may occur when

subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

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

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

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

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

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

English (GB) United Kingdom (UK) 11/15

Code : 00286441 Date of issue/Date of revision : 21 February 2020

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 11: Toxicological information

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

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---------------------------------------|---------------------------------|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane | Acute LC50 1.8 mg/l Fresh water | Daphnia - daphnia magna | 48 hours |
| 2,3-epoxypropyl neodecanoate | Chronic NOEC 0.3 mg/l Acute EC50 3.5 mg/l Acute EC50 4.8 mg/l | Daphnia Algae Daphnia - Daphnia | 21 days 96 hours 48 hours |
| | Acute LC50 9.6 mg/l | magna Fish - | 96 hours |
| | | Oncorhynchus mykiss | |

Conclusion/Summary: There are no data available on the mixture itself.

12.2 Persistence and degradability

Conclusion/Summary: There are no data available on the mixture itself.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|----------------------------|
| bis-[4-(2,3-epoxipropoxi)phenyl]propane 2,3-epoxypropyl neodecanoate | - | - | Not readily Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|------------------------------|--------|-----|-----------|
| 2,3-epoxypropyl neodecanoate | 4.4 | - | high |

12.4 Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

| English (GB) | United Kingdom (UK) | 12/15 |
|--------------|---------------------|-------|
| | | |

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 13: Disposal considerations

Methods of disposal

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

Hazardous waste : Yes. European waste catalogue (EWC)

| Waste code | Waste designation | |
|------------|---|--|
| 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances | |

Packaging

Methods of disposal

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

| Type of packaging | | European waste catalogue (EWC) |
|-------------------|----------|--------------------------------|
| Container | 15 01 06 | mixed packaging |

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

| | ADR/RID | ADN | IMDG | IATA |
|----------------------------------|---|---|--|---|
| 14.1 UN number | UN3082 | UN3082 | UN3082 | UN3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4- (2,3-epoxipropoxi) phenyl]propane, 2,3-epoxypropyl neodecanoate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4- (2,3-epoxipropoxi) phenyl]propane, 2,3-epoxypropyl neodecanoate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4- (2,3-epoxipropoxi) phenyl]propane, 2,3-epoxypropyl neodecanoate) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tois-[4- (2,3-epoxipropoxi) phenyl]propane, 2,3-epoxypropyl neodecanoate) |
| 14.3 Transport hazard class(es) | 9 | 9 | 9 | 9 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. |
| Marine pollutant substances | Not applicable. | Not applicable. | (bis-[4- (2,3-epoxipropoxi) phenyl]propane, 2,3-epoxypropyl neodecanoate) | Not applicable. |

Additional information

| English (GB) | United Kingdom (UK) | 13/15 |
|--------------|---|-------|
| (/ | 5 · · · · · · · · · · · · · · · · · · · | |

Code : 00286441 Date of issue/Date of revision : 21 February 2020

AMERLOCK 2/400 AL BASE ALUMINIUM

14. Transport information

ADR/RID : 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.

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg,

ADN 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.

: 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.

: 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.

user

IMDG

IATA

14.6 Special precautions for : 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 Transport in bulk according to Annex II of Marpol and the IBC Code : 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

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable.

on the manufacture, placing on the market and use of certain

dangerous substances,

mixtures and articles

Ozone depleting substances (1005/2009/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

E2

15.2 Chemical safety assessment

: No Chemical Safety Assessment has been carried out.

United Kingdom (UK) English (GB) 14/15

Code : 00286441 Date of issue/Date of revision : 21 February 2020

AMERLOCK 2/400 AL BASE ALUMINIUM

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

ATE = Acute Toxicity Estimate

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

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

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

| Classification | Justification |
|-------------------------|--------------------|
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Muta. 2, H341 | Calculation method |
| Aquatic Chronic 2, H411 | Calculation method |

Full text of abbreviated H statements

| 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. |
| H341 | Suspected of causing genetic defects. |
| H411 | Toxic to aquatic life with long lasting effects. |

Full text of classifications [CLP/GHS]

| Aquatic Chronic 2, H411 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
|-----------------------------|--|
| Asp. Tox. 1, H304 EUH066 | ASPIRATION HAZARD - Category 1 Repeated exposure may cause skin dryness or cracking. |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Muta. 2, H341 | GERM CELL MUTAGENICITY - Category 2 |
| Skin Irrit. 2, H315 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1, H317 | SKIN SENSITISATION - Category 1 |

History

Date of issue/ Date of : 21 February 2020

revision

Date of previous issue : 11 October 2019

Prepared by : EHS Version : 6.08

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by us, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

English (GB) United Kingdom (UK) 15/15