SAFETY DATA SHEET



Conforms to Official Mexican Standard NOM-018-STPS-2015

Date of revision 21 December 2018

Version 3

Date of issue 21 December 2018

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

| Product name | : AMERCOAT 450HS CURE |
|----------------------------------|--|
| Product code | : AT45HS-BA |
| Other means of identification | : Not applicable. |
| Product type | : Liquid. |
| Relevant identified uses of | the substance or mixture and uses advised against |
| Product use | : Industrial applications. |
| Use of the substance/ mixture | : Coating. |
| Uses advised against | Not applicable. |
| Manufacturer | : PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272 |
| Emergency telephone number | : (412) 434-4515 (U.S.) (514) 645-1320 (Canada) 01-800-00-21-400 or + 52 55 5559 1588 (Mexico) |
| Technical Phone Number | : 888-977-4762 |

SECTION 2: Hazards identification

| Classification of the substance or mixture | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - |
|--|--|
| GHS label elements | Category 3 |
| Hazard pictograms | |
| Signal word | : Danger |
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Product name AMERCOAT 450HS CURE

SECTION 2: Hazards identification

| Hazard statements | : | H226 - Flammable liquid and vapor. H332 - Harmful if inhaled. H303 + H313 - May be harmful if swallowed or in contact with skin. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 - May cause an allergic skin reaction. H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. |
|---|---|---|
| Precautionary statements | | |
| Prevention | : | P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. P284 - Wear respiratory protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P271 - Use only outdoors or in a well-ventilated area. P261 - Avoid breathing vapor. P272 - Contaminated work clothing should not be allowed out of the workplace. |
| Response | : | P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or physician. P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P302 + P352 + P312 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention. |
| Storage | : | P405 - Store locked up. |
| Disposal | : | P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Other hazards which do not result in classification | : | Prolonged or repeated contact may dry skin and cause irritation. Skin contact to isocyanate monomer may lead to allergic lung reaction. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Repeated exposure may lead to permanent respiratory disability. Moisture-sensitive material. Emits toxic fumes when heated. |

See toxicological information (Section 11)

SECTION 3: Composition/information on ingredients

| Substance/mixture | : Mixture |
|----------------------------------|-----------------------|
| Product name | : AMERCOAT 450HS CURE |
| Other means of identification | : Not applicable. |

| Ingredient name | % | CAS number |
|---------------------------------------|-----------|------------|
| Hexamethylene diisocyanate, oligomers | ≥50 - <55 | 28182-81-2 |
| n-butyl acetate | ≥20 - ≤50 | 123-86-4 |
| hexamethylene-di-isocyanate | <1.0 | 822-06-0 |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Product name AMERCOAT 450HS CURE

SECTION 3: Composition/information on ingredients

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.

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

SECTION 4: First aid measures

Description of necessary 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 recognized skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

| Eye contact | : No known significant effects or critical hazards. |
|--------------|---|
| Inhalation | : Harmful if inhaled. Can cause central nervous system (CNS) depression. May |
| Innalation | cause drowsiness or dizziness. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin contact | : May be harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction. |
| Ingestion | : May be harmful if swallowed. Can cause central nervous system (CNS) depression. |

Over-exposure signs/symptoms

See toxicological information (Section 11)

| Indication of immediate med | lical attention and special treatment needed, if necessary | |
|-----------------------------|---|--|
| Notes to physician | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. | |
| Specific treatments | : No specific treatment. | |
| 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. | |

SECTION 5: Firefighting measures

| Extinguishing media | |
|--|---|
| Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : Do not use water jet. |
| Specific hazards arising from the chemical | : Flammable liquid and vapor. 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. |

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SECTION 5: Firefighting measures

| Hazardous thermal decomposition products | : Decomposition products may include the following materials: carbon oxides nitrogen oxides Cyanate and isocyanate. hydrogen cyanide |
|--|--|
| Special protective actions 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| 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. |

SECTION 6: Accidental release measures

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|--------------------------------|-----|---|
| For emergency responders | : | |
| 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). |
| Methods and materials for co | ont | ainment and cleaning up |
| Small spill | : | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. 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). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |
| Special provisions | : | 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). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is |
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SECTION 6: Accidental release measures

reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

SECTION 7: Handling and storage

| Precautions for safe handling | | |
|--|--|-----------------------|
| Protective measures | Put on appropriate personal protective equipment (see Section 8). Persons with history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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. I explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do reuse container. | is Use |
| Special precautions | Vapors may accumulate in low or confined areas or travel a considerable distance a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Saf Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. | |
| 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. | |
| Conditions for safe storage, including any incompatibilities | Do not store above the following temperature: $50^{\circ}C$ ($122^{\circ}F$). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, aw from incompatible materials (see Section 10) and food and drink. Store locked u Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. Precautions should be taken to minimize exposure to atmospheric humidity or wa CO_2 will be formed, which, in closed containers, could result in pressurization. | al vay ip. r |

SECTION 8: Exposure controls/personal protection

<u>Control parameters</u> <u>Occupational exposure limits</u> = Ceiling Limit

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Product name AMERCOAT 450HS CURE

SECTION 8: Exposure controls/personal protection

| Ingredient name | Exposure limits |
|---------------------------------------|--|
| ₩examethylene diisocyanate, oligomers | IPEL (PPG). |
| | TWA: 0.5 mg/m³ STEL: 1 mg/m³ |
| n-butyl acetate | NOM-010-STPS-2014 (Mexico, 4/2016). |
| | STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours. |
| hexamethylene-di-isocyanate | NOM-010-STPS-2014 (Mexico, 4/2016). |
| | TWA: 0.005 ppm 8 hours. |

| Key to | abbreviations |
|--------|---------------|
|--------|---------------|

STEL = Short term exposure limit

IPEL = Internal Permissible Exposure Limit

TLV = Threshold Limit Value

TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

| 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 appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. |
|------------------------------------|---|---|
| Appropriate engineering controls | : | Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. |
| 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. |
| Individual protection measure | s | |
| 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 | : | Safety glasses with side shields. |
| Skin protection Hand protection | : | 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. |
| Gloves | : | butyl rubber |

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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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. |
| 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 | : By spraying: air-fed respirator. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask. 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. |
| Restrictions on use | Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. |

SECTION 9: Physical and chemical properties

| <u>Appearance</u> | | |
|--|---|---|
| Physical state | : | Liquid. |
| Color | 1 | Not available. |
| Odor | 1 | Characteristic. |
| Odor threshold | : | Not available. |
| Molecular weight | 4 | Not applicable. |
| рН | ÷ | Not available. |
| Melting point | 1 | Not available. |
| Boiling point | 1 | >37.78°C (>100°F) |
| Flash point | 1 | Closed cup: 33.33°C (92°F) |
| Material supports combustion. | : | Yes. |
| Auto-ignition temperature | 1 | Not available. |
| Decomposition temperature | : | Not available. |
| Flammability (solid, gas) | 4 | Not available. |
| Lower and upper explosive (flammable) limits | : | Not available. |
| Evaporation rate | 1 | 1 (butyl acetate = 1) |
| Vapor pressure | 1 | 1.5 kPa (11 mm Hg) [room temperature] |
| Vapor density | 1 | Not available. |
| Relative density | : | 1 |
| Density(lbs / gal) | : | 8.35 |
| Solubility | : | Insoluble in the following materials: cold water. |
| Solubility in water | 1 | 0.3 g/l |
| Partition coefficient: n- octanol/water | : | Not available. |
| Viscosity | : | Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt) |
| Volatility | 1 | 52% (v/v), 45.529% (w/w) |
| % Solid. (w/w) | 1 | 54.471 |

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SECTION 10: Stability and reactivity

| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
|------------------------------------|--|
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : In a fire, hazardous decomposition products may be produced. Refer to protective measures listed in sections 7 and 8. |
| Incompatible materials | : Keep away from: oxidizing agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols. |
| Hazardous decomposition products | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates. |

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Expos | sure |
|------------------------------------|----------------------------------|------------------|--------------|-------|------------|
| Hexamethylene | LD50 Dermal | Rabbit | >2000 mg/kg | - | |
| diisocyanate, oligomers | | | | | |
| | LD50 Oral | Rat - Female | >2500 mg/kg | - | |
| n-butyl acetate | LC50 Inhalation Vapor | Rat | >21.1 mg/l | 4 hou | |
| | LC50 Inhalation Vapor | Rat | 2000 ppm | 4 hou | rs |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - | |
| le su se se stille de se se stille | LD50 Oral | Rat | 10.768 g/kg | - | |
| hexamethylene-di- isocyanate | LC50 Inhalation Dusts and mists | Rat | 124 mg/m³ | 4 hou | rs |
| | LC50 Inhalation Vapor | Rat | 151 mg/m³ | 4 hou | rs |
| | LC50 Inhalation Vapor | Rat | 22 ppm | 4 hou | rs |
| | LD50 Dermal | Rabbit | 0.57 g/kg | - | |
| | LD50 Oral | Rat | 0.71 g/kg | - | |
| Conclusion/Summary | : There are no data available on | the mixture itse | elf. | | |
| Irritation/Corrosion | | | | | |
| Conclusion/Summary | | | | | |
| Skin | : There are no data available on | the mixture itse | elf. | | |
| Eyes | : There are no data available on | the mixture itse | elf. | | |
| Respiratory | : There are no data available on | the mixture itse | elf. | | |
| Sensitization | | | | | |
| Conclusion/Summary | | | | | |
| Skin | : There are no data available on | the mixture itse | elf. | | |
| Respiratory | : There are no data available on | the mixture itse | elf. | | |
| <u>Mutagenicity</u> | | | | | |
| Conclusion/Summary | : There are no data available on | the mixture itse | elf. | | |
| Carcinogenicity | | | | | |
| Conclusion/Summary | : There are no data available on | the mixture itse | elf. | | |
| | | | Me | xico | Page: 8/13 |

Product name AMERCOAT 450HS CURE

SECTION 11: Toxicological information

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)

| Name | Category | Route of exposure | Target organs |
|--|--------------------------|-------------------|---|
| Hexamethylene diisocyanate, oligomers | | | Respiratory tract irritation |
| n-butyl acetate hexamethylene-di-isocyanate | Category 3 Category 3 | | Narcotic effects Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

Target organs

: Contains material which causes damage to the following organs: brain. Contains material which may cause damage to the following organs: upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

| Potential acute nearth effect | <u>s</u> | |
|-------------------------------|------------|--|
| Eye contact | : | No known significant effects or critical hazards. |
| Inhalation | : | Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Skin contact | : | May be harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction. |
| Ingestion | : | May be harmful if swallowed. Can cause central nervous system (CNS) depression. |
| Over-exposure signs/sympt | om | <u>5</u> |
| Eye contact | : | No specific data. |
| Inhalation | : | Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness |
| Skin contact | : | Adverse symptoms may include the following: irritation redness dryness cracking |
| Ingestion | : | No specific data. |
| Delayed and immediate effe | <u>cts</u> | and also chronic effects from short and long term exposure |
| | | |

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Product name AMERCOAT 450HS CURE

SECTION 11: Toxicological information

| | | 5 |
|--------------------------------|-------------|--|
| Conclusion/Summary | : | There are no data available on the mixture itself. Skin contact to isocyanate monomer may lead to allergic lung reaction. Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitization of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Repeated exposure may lead to permanent respiratory disability. 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. |
| <u>Short term exposure</u> | | |
| Potential immediate effects | : | There are no data available on the mixture itself. |
| Potential delayed effects | : | There are no data available on the mixture itself. |
| Long term exposure | | |
| Potential immediate effects | 1 | There are no data available on the mixture itself. |
| Potential delayed effects | : | There are no data available on the mixture itself. |
| Potential chronic health effe | octs | |
| 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 | : | No known significant effects or critical hazards. |
| 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. |
| Numerical measures of toxic | <u>city</u> | |

Acute toxicity estimates

| Route | ATE value | |
|------------------------------|--------------|--|
| Oral | 4589.7 mg/kg | |
| Dermal | 4589.7 mg/kg | |
| Inhalation (gases) | 8261.4 ppm | |
| Inhalation (vapors) | 20.19 mg/l | |
| Inhalation (dusts and mists) | 2.754 mg/l | |

SECTION 12: Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---------------------------------------|----------------------|---|----------------------|
| Hexamethylene diisocyanate, oligomers | Acute EC50 >100 mg/l | Algae - scenedesmus subspicatus Daphnia - daphnia magna | 72 hours 48 hours |
| | Acute LC50 >100 mg/l | Fish - Danio rerio (zebra fish) | 96 hours |

Persistence and degradability

Product name AMERCOAT 450HS CURE

SECTION 12: Ecological information

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---------------------------------------|-------------------|------------|------------------|
| Hexamethylene diisocyanate, oligomers | - | - | Not readily |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|--|--------------|-----|------------|
| Hexamethylene diisocyanate, oligomers | - | 3.2 | low |
| n-butyl acetate hexamethylene-di-isocyanate | 1.78 1.08 | - | low low |

Mobility in soil

| Soil/water partition | | |
|----------------------|--|--|
| coefficient (Koc) | | |

: Not available.

Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

| Disposal methods | : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with |
|------------------|---|
| | soil, waterways, drains and sewers. |

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

SECTION 14: Transport information

| | Mexico Classification | IMDG | ΙΑΤΑ |
|-------------------------------|-----------------------|--------|--------|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class(es) | 3 | 3 | 3 |
| Packing group | III | III | |
| | | | |

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SECTION 14: Transport information

| Environmental hazards | No. | No. | No. |
|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Marine pollutant substances | Not applicable. | Not applicable. | Not applicable. |
| Product RQ (lbs) RQ substances | Not applicable. Not applicable. | Not applicable. Not applicable. | Not applicable. Not applicable. |

Additional information

| Mexico | : None identified. |
|--------|--------------------|
| IMDG | : None identified. |
| ΙΑΤΑ | : None identified. |

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.

SECTION 15: Regulatory information

<u>Mexico</u>

Classification

Flammability : 3 Health : 3 Reactivity : 0

International regulations

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

SECTION 16: Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0 (*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

| Date of previous issue | | 9/11/2018 | |
|-------------------------------------|---|-----------|--|
| Organization that prepared the MSDS | : | EHS | |

Product name AMERCOAT 450HS CURE

SECTION 16: Other information

| Key to abbreviations | : ATE = Acute Toxicity Estimate |
|----------------------|---|
| - | BCF = Bioconcentration Factor |
| | GHS = Globally Harmonized System of Classification and Labelling of Chemicals |
| | IATA = International Air Transport Association |
| | IBC = Intermediate Bulk Container |
| | IMDG = International Maritime Dangerous Goods |
| | LogPow = logarithm of the octanol/water partition coefficient |
| | MARPOL = International Convention for the Prevention of Pollution From Ships, |
| | 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) |
| | UN = United Nations |
| | |

✓ Indicates information that has changed from previously issued version.

Notice to reader

The information, which is based on the current knowledge of the chemical substance or mixture and applies to appropriate safety precautions for the product, is deemed correct but is not exhaustive and will be used only as a guide.

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 PPG, 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.