



| _ | te of issue 10/5/2023 rsion 9.03 | (month/day/year) | SDS Number: | AA00147-5300000016 |
|----|--------------------------------------|-------------------------------|-------------------------|------------------------|
| S | ection 1. Chemic | cal product an | d company io | lentification |
| Α. | Product name Product code | : AMERCOAT 5450 : 00334744 | BLACK | |
| в. | Relevant identified uses | of the substance or m | nixture and uses advi | sed against |
| | Product use | : Professional applic | ations, Used by sprayi | ng. |
| | Use of the substance/ mixture | : Coating. | | |
| | Uses advised against | : Product is not inter | nded, labelled or packa | aged for consumer use. |
| C. | Supplier's or Importer's information | (680-090) | | |
| | | 0 | 0.001 | |
| | Emergency telephone number: | : +82-52-210-8222 | | |

Section 2. Hazards identification

| A. Hazard classification | : FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1B |
|---|---|
| | TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - |
| | Category 3 |
| | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3 |
| — · · · · · · · · · · · · · · · · · · · | |

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements Symbol :



Signal word

: Danger

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| Section 2. Hazards identification |
|-----------------------------------|
|-----------------------------------|

| | Hazard statements | | H226 - Flammable liquid and vapor. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. H350 - May cause cancer. H360 - May damage fertility or the unborn child. H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver) H412 - Harmful to aquatic life with long lasting effects. |
|----|---|---|--|
| | Precautionary statements | 5 | |
| | Prevention | : | P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves, protective clothing and eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating or lighting equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P273 - Avoid release to the environment. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product. P264 - Wash thoroughly after handling. |
| | Response | : | P308 + P313 - IF exposed or concerned: Get medical advice or attention. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. |
| | Storage | : | P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Keep cool. |
| | Disposal | : | P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| C. | Other hazards which do not result in classification | : | Prolonged or repeated contact may dry skin and cause irritation. |
| | | | |

Section 3. Composition/information on ingredients

CAS number/other identifiers

CAS number

: Not applicable.

| Chemical name | Common name | Identifiers | % |
|--------------------------------------|------------------------------|-----------------|------------|
| Solvent naphtha (petroleum), medium | SOLVENT NAPHTHA (PETROLEUM), | CAS: 64742-88-7 | 10 -<20 |
| aliph. | MEDIUM ALIPHATIC | | |
| Stoddard solvent | STODDARD SOLVENT | CAS: 8052-41-3 | 5 - <10 |
| Solvent naphtha (petroleum), light | SOLVENT NAPHTHA (PETROLEUM), | CAS: 64742-95-6 | 5 - <10 |
| aromatic | LIGHT AROMATIC | | |
| 1,2,4-trimethylbenzene | 1,2,4-TRIMETHYL BENZENE | CAS: 95-63-6 | 1 - <5 |
| Xylene | XYLENES | CAS: 1330-20-7 | 1 - <5 |
| 2-ethylhexanoic acid, zirconium salt | ZIRCONIUM 2-ETHYLHEXANOATE | CAS: 22464-99-9 | 1 - <5 |
| 2-methoxy-1-methylethyl acetate | 1-METHOXY-2-PROPYL ACETATE | CAS: 108-65-6 | 1 - <5 |
| | | | |
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Section 3. Composition/information on ingredients

| - | • | | |
|---|-----------------------------|-----------------|----------|
| carbon black | CARBON BLACK | CAS: 1333-86-4 | 0.1 - <1 |
| ethylbenzene | ETHYLBENZENE | CAS: 100-41-4 | 0.1 - <1 |
| Distillates (petroleum), hydrotreated light | DISTILLATES (PETROLEUM), | CAS: 64742-47-8 | 0.1 - <1 |
| | HYDROTREATED LIGHT | | |
| 2-butanone oxime | METHYL ETHYL KETOXIME | CAS: 96-29-7 | 0.1 - <1 |
| ethanol | ETHYL ALCOHOL | CAS: 64-17-5 | 0.1 - <1 |
| cumene | CUMENE | CAS: 98-82-8 | 0.1 - <1 |
| Fatty acids, C9-13-neo-, cobalt salts | FATTY ACIDS, C9-C13, COBALT | CAS: 68955-83-9 | <0.1 |
| | SALTS | | |
| neodecanoic acid, cobalt salt | COBALT NEODECANOATE | CAS: 27253-31-2 | <0.1 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

| Α. | 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. |
|----|----------------------------|---|---|
| В. | 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. |
| C. | 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. |
| D. | Ingestion | : | If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |
| Е. | Notes to physician | : | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | 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. |

See toxicological information (Section 11)

Section 5. Fire-fighting measures

| Α. | Extinguishing media | |
|----|-----------------------------------|--|
| | Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| | Unsuitable extinguishing media | : Do not use water jet. |

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Section 5. Fire-fighting measures

| В. | 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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
|----|--|---|---|
| | Hazardous thermal decomposition products | : | Decomposition products may include the following materials: carbon oxides sulfur oxides halogenated compounds metal oxide/oxides |
| C. | Special equipment for fire-fighting | : | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| | Fire-fighting procedures | : | 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. |

Section 6. Accidental release measures

| A. Personal precautions, protective equipment and emergency procedures | : | 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. |
|--|----|---|
| B. 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. |
| C. Methods and materials for | СС | ontainment 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. |

Section 7. Handling and storage

| Α. | Precautions for safe : handling | Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. |
|----|--|--|
| | | Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. |
| В. | Conditions for safe : storage, including any incompatibilities | Store between the following temperatures: 0 to 35°C (32 to 95°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, away from incompatible materials (see Section 10) and food and drink. Store locked up. 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. See Section 10 for incompatible materials before handling or use. |

Section 8. Exposure controls/personal protection

A. Occupational exposure limits

| Ingredient name | Exposure limits |
|--|--|
| Solvent naphtha (petroleum), medium aliph. | ACGIH TLV (United States). |
| | TWA: 400 ppm |
| Stoddard solvent | ACGIH TLV (United States, 1/2022). |
| | TWA: 525 mg/m ³ 8 hours. |
| | TWA: 100 ppm 8 hours. |
| 1,2,4-trimethylbenzene | Ministry of Employment and Labor |
| | (Republic of Korea, 1/2020). [Trimethyl |
| | benzene (mixed isomers)] |
| | TWA: 25 ppm 8 hours. |
| Xylene | Ministry of Employment and Labor |
| | (Republic of Korea, 1/2020). [Xylene (all |
| | isomers)] |
| | STEL: 150 ppm 15 minutes. |
| | TWA: 100 ppm 8 hours. |
| 2-ethylhexanoic acid, zirconium salt | Ministry of Employment and Labor |
| | (Republic of Korea, 1/2020). [Zirconium |
| | and compounds as Zr] |
| | STEL: 10 mg/m ³ , (as Zr) 15 minutes. |
| | TWA: 5 mg/m³, (as Zr) 8 hours. |
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Section 8. Exposure controls/personal protection

| S | ection 8. Exposu | re | e controls/personal pro | tection |
|----|------------------------------|------|---|--|
| | carbon black | | | Ministry of Employment and Labor |
| | | | | (Republic of Korea, 1/2020). |
| | | | | TWA: 3.5 mg/m ³ 8 hours. Form: inhalable |
| | | | | fraction |
| | ethylbenzene | | | Ministry of Employment and Labor |
| | | | | (Republic of Korea, 1/2020). |
| | | | | STEL: 125 ppm 15 minutes. |
| | | | | TWA: 100 ppm 8 hours. |
| | Distillates (petroleum), hyd | lro | reated light | ACGIH TLV (United States, 1/2022). |
| | | | | [Kerosene as total hydrocarbon vapor] Absorbed through skin. |
| | | | | TWA: 200 mg/m ³ , (as total hydrocarbon |
| | | | | vapor) 8 hours. |
| | ethanol | | | Ministry of Employment and Labor |
| | | | | (Republic of Korea, 1/2020). |
| | | | | TWA: 1000 ppm 8 hours. |
| | cumene | | | Ministry of Employment and Labor |
| | | | | (Republic of Korea, 1/2020). Absorbed |
| | | | | through skin. |
| | | | | TWA: 50 ppm 8 hours. |
| | Fatty acids, C9-13-neo-, c | oba | alt salts | Ministry of Employment and Labor |
| | | | | (Republic of Korea, 1/2020). [Cobalt and |
| | | | | inorganic compounds] |
| | | | | TWA: 0.02 mg/m ³ 8 hours. |
| | neodecanoic acid, cobalt s | salt | | Ministry of Employment and Labor |
| | | | | (Republic of Korea, 1/2020). [Cobalt and inorganic compounds] |
| | | | | TWA: 0.02 mg/m ³ 8 hours. |
| | | | | Ũ |
| | Recommended | 1 | | riate monitoring standards. Reference to |
| | monitoring procedures | | | nods for the determination of hazardous |
| | | | substances will also be required. | |
| | | | | |
| В. | Appropriate engineering | 1 | Use only with adequate ventilation. Use | |
| | controls | | | Is to keep worker exposure to airborne |
| | | | | ed or statutory limits. The engineering controls concentrations below any lower explosive |
| | | | limits. Use explosion-proof ventilation | |
| | Environmental | | | |
| | exposure controls | | | bcess equipment should be checked to ensure environmental protection legislation. In some |
| | exposure controls | | cases, fume scrubbers, filters or engir | |
| | | | equipment will be necessary to reduce | |
| | | | | |
| С. | Personal protective equi | pm | ent | |
| | Respiratory protection | | | n known or anticipated exposure levels, the |
| | Respiratory protection | | | vorking limits of the selected respirator. If |
| | | | | is above the exposure limit, they must use |
| | | | | e a properly fitted, air-purifying or air-fed |
| | | | | d standard if a risk assessment indicates this is |
| | | | necessary. | |
| | Eye protection | | Chemical splash goggles. | |
| | | | | |

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Section 8. Exposure controls/personal 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 | : For prolonged or repeated handling, use the following type of gloves: |
| | |
| | Recommended: neoprene, natural rubber (latex), butyl rubber, polyvinyl alcohol (PVA), Viton® May be used: Chloroprene, nitrile rubber |
| 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. |
| 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

| | | | Ingredient name | mm Hg | kPa | Method | mm Ha | kPa |
|----------|--|---|--|-----------|----------|--------------|-----------|---------|
| Κ. | Vapor pressure | : | | Vapo | r Pressu | re at 20°C | Vap | or pres |
| J. | Lower and upper explosive (flammable) limits | | Greatest known rang | e: Lower: | 0.6% U | pper: 8% (St | oddard so | olvent) |
| Ι. | Flammability (solid, gas) | | Not available. | | | | | |
| G. H. | Flash point Evaporation rate | | Closed cup: 38°C (10 Not available. | 0.4°F) | | | | |
| F. | Boiling point/boiling range | : | >37.78°C (>100°F) | | | | | |
| Ε. | Melting/freezing point | : | Not available. | | | | | |
| D. | рН | : | Not applicable. | | | | | |
| | Odor threshold | ÷ | Not available. | | | | | |
| в | Color Odor | ÷ | Black. Characteristic. | | | | | |
| | Physical state | | Liquid. | | | | | |
| Α. | Appearance | | | | | | | |

| | Vapo | r Pressui | re at 20°C | Vapor pressure at 50°C | | | |
|-----------------|-------|-----------|------------|------------------------|-----|--------|--|
| Ingredient name | mm Hg | kPa | Method | mm Hg | kPa | Method | |
| xylene | 6.7 | 0.89 | | | | | |

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Section 9. Physical and chemical properties

| L. | Solubility(ies) | | Media | Result | | | | | |
|----|--|----|-------------------------|--|------------|--------|--|--|--|
| | Containing (100) | ÷. | cold water | Not soluble | | | | | |
| | Solubility in water | : | Not available. | | | | | | |
| м. | Vapor density | : | Not available. | | | | | | |
| N. | Relative density | : | 1.2 | | | | | | |
| 0. | Partition coefficient: n- octanol/water | : | Not applicable. | | | | | | |
| Р. | Auto-ignition temperature | : | | | | | | | |
| | | | Ingredient name | °C | °F | Method | | | |
| | | | Stoddard solvent | 230 to 240 | 446 to 464 | | | | |
| Q. | Decomposition temperature | : | Not available. | | | - | | | |
| R. | Viscosity | : | Kinematic (40°C (104°F) | inematic (40°C (104°F)): >21 mm²/s (>21 cSt) | | | | | |
| п. | Flow time (ISO 2431) | : | Not available. | | | | | | |
| s. | Molecular weight | : | Not applicable. | | | | | | |

Section 10. Stability and reactivity

| | | | 5 |
|----|-------------------------------------|---|--|
| Α. | Chemical stability | : | The product is stable. |
| | Possibility of hazardous reactions | - | Under normal conditions of storage and use, hazardous reactions will not occur. |
| в. | Conditions to avoid | : | When exposed to high temperatures may produce hazardous decomposition products. |
| C. | Incompatible materials | : | Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids. |
| D. | Hazardous decomposition products | : | Depending on conditions, decomposition products may include the following materials: carbon oxides sulfur oxides halogenated compounds metal oxide/ oxides |
| | | | |

Section 11. Toxicological information

| A. Information on the likely routes of exposure | / : Not available. |
|---|---|
| Potential acute health effe | <u>cts</u> |
| Inhalation | Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. |
| Ingestion | Can cause central nervous system (CNS) depression. |
| Skin contact | Causes skin irritation. Defatting to the skin. |
| Eye contact | Causes serious eye irritation. |
| Over-exposure signs/sym | atoms |

<u>Over-exposure signs/symptoms</u>

Section 11. Toxicological information

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

B. Health hazards

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-----------------------|---------|--------------------------|-----------|
| Solvent naphtha (petroleum), medium aliph. | LD50 Dermal | Rabbit | >3000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Stoddard solvent | LD50 Oral | Rat | >5 g/kg | - |
| Solvent naphtha (petroleum), light aromatic | LD50 Dermal | Rabbit | 3.48 g/kg | - |
| | LD50 Oral | Rat | 8400 mg/kg | - |
| 1,2,4-trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| Xylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| 2-ethylhexanoic acid, zirconium salt | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| 2-methoxy-1-methylethyl acetate | LC50 Inhalation Vapor | Rat | 30 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 6190 mg/kg | - |
| carbon black | LD50 Oral | Rat | >10 g/kg | - |
| ethylbenzene | LC50 Inhalation Vapor | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| 2-butanone oxime | LD50 Dermal | Rabbit | 1100 mg/kg | - |
| | LD50 Oral | Rat | 100 mg/kg | - |
| ethanol | LC50 Inhalation Vapor | Rat | 124700 mg/m ³ | 4 hours |
| | LD50 Dermal | Rat | 17100 mg/kg | - |
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Product/ingredient name Route of

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| | LD50 Oral | Rat | 7 g/kg | - |
|-------------------------------|-----------------------|--------|-------------------------|---------|
| cumene | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 12.3 g/kg | - |
| | LD50 Oral | Rat | 2260 mg/kg | - |
| neodecanoic acid, cobalt salt | LD50 Oral | Rat - | 1098 mg/kg | - |
| | | Female | | |

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

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|---------|-------|--------------------|-------------|
| Xylene | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Conclusion/Summary | | · | | | |

Species

| <u>oonclusion/ourninary</u> | |
|-----------------------------|--|
| 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. |
| | |

Sensitization

| | exposure | | | |
|--------------------------------|---------------------------|-------------------------------|-------------|---------------------------------|
| neodecanoic acid, cobalt salt | skin | Mouse | Sensitizing | |
| Conclusion/Summary | | | ł | |
| Skin : | There are no data a | available on the mixture itse | lf. | |
| Respiratory : | There are no data a | available on the mixture itse | lf. | |
| Mutagenicity | | | | |
| 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. | |
| Reproductive toxicity | | | | |
| Conclusion/Summary : | There are no data | available on the mixture its | elf. | |
| Teratogenicity | | | | |
| Conclusion/Summary : | There are no data | available on the mixture its | elf. | |
| Specific target organ toxicity | <u>y (single exposure</u> | <u>)</u> | | |
| Name | | Classification | Route of | Target organs |
| | | | exposure | |
| Solvent naphtha (petroleum), | | Category 3 | - | Narcotic effects |
| Solvent naphtha (petroleum), | light aromatic | Category 3 | - | Narcotic effects |
| 1,2,4-trimethylbenzene | | Category 3 | - | Respiratory tract irritation |
| Xylene | | Category 3 | _ | Narcotic effects |
| 2-methoxy-1-methylethyl aceta | ate | Category 3 | - | Narcotic effects |
| 2-butanone oxime | | Category 1 | - | upper respiratory tract |
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| | | | | |

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| | Category 3 Category 3 | | Narcotic effects Respiratory tract irritation |
|--|--------------------------|--|---|
|--|--------------------------|--|---|

Specific target organ toxicity (repeated exposure)

| Name | Classification | Route of exposure | Target organs |
|--|----------------|-------------------|--|
| Solvent naphtha (petroleum), medium aliph. | Category 1 | - | central nervous system (CNS) |
| Stoddard solvent | Category 1 | - | central nervous system (CNS) |
| Xylene | Category 1 | - | central nervous system (CNS), kidneys, liver |
| 2-butanone oxime | Category 2 | - | blood system |
| neodecanoic acid, cobalt salt | Category 1 | oral | gastrointestinal tract |

Aspiration hazard

| Name | Result |
|---|--------------------------------|
| Solvent naphtha (petroleum), medium aliph. | ASPIRATION HAZARD - Category 1 |
| Stoddard solvent | ASPIRATION HAZARD - Category 1 |
| Solvent naphtha (petroleum), light aromatic | ASPIRATION HAZARD - Category 1 |
| ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Distillates (petroleum), hydrotreated light | ASPIRATION HAZARD - Category 1 |

Potential chronic health effects

| General | : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. |
|---------------------------------|--|
| Carcinogenicity Mutagenicity | May cause cancer. Risk of cancer depends on duration and level of exposure. No known significant effects or critical hazards. |
| Reproductive toxicity | : May damage fertility or the unborn child. |

Additional information

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

| Chemical name | Identifiers | GHS Classification |
|--|-----------------|---|
| Solvent naphtha (petroleum), medium aliph. | CAS: 64742-88-7 | FLAMMABLE LIQUIDS - Category 3 |
| | | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 ASPIRATION HAZARD - Category 1 |
| Stoddard solvent | CAS: 8052-41-3 | AQUATIC HAZARD (LONG-TERM) - Category 2 FLAMMABLE LIQUIDS - Category 3 EYE IRRITATION - Category 2A |
| 1 | 1 | Korea (GHS) Page: 11/17 |

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Section 11. Toxicological information

| U | | |
|---|----------------------------------|---|
| Solvent naphtha (petroleum), light aromatic | CAS: 64742-95-6 | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 4 FLAMMABLE LIQUIDS - Category 3 |
| aiomalic | | SKIN IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 |
| 1,2,4-trimethylbenzene | CAS: 95-63-6 | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 2 |
| Xylene | CAS: 1330-20-7 | FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 |
| 2-ethylhexanoic acid, zirconium salt 2-methoxy-1-methylethyl acetate | CAS: 22464-99-9 CAS: 108-65-6 | TOXIC TO REPRODUCTION - Category 1B FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| carbon black ethylbenzene | CAS: 1333-86-4 CAS: 100-41-4 | CARCINOGENICITY - Category 2 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3 |
| Distillates (petroleum), hydrotreated light | CAS: 64742-47-8 | CARCINOGENICITY - Category 2 ASPIRATION HAZARD - Category 1 |
| 2-butanone oxime ethanol | CAS: 96-29-7 CAS: 64-17-5 | FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 FLAMMABLE LIQUIDS - Category 2 |
| | | EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 |
| | | Korea (GHS) Page: 12/17 |

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Section 11. Toxicological information

| cumene | CAS: 98-82-8 | FLAMMABLE LIQUIDS - Category 3 CARCINOGENICITY - Category 2 |
|---------------------------------------|-----------------|---|
| Fatty acids, C9-13-neo-, cobalt salts | CAS: 68955-83-9 | ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1A SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |
| neodecanoic acid, cobalt salt | CAS: 27253-31-2 | ACUTE TOXICITY (oral) - Category 4 SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3 |

Section 12. Ecological information

A. Ecotoxicity

| Product/ingredient name | Result | Species | Exposure |
|--|--|--|---------------|
| Solvent naphtha (petroleum), light aromatic | Acute LC50 8.2 mg/l | Fish | 96 hours |
| 2-ethylhexanoic acid, zirconium salt | Acute LC50 >100 mg/l | Fish | 96 hours |
| 2-methoxy-1-methylethyl acetate | Acute LC50 134 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water | Daphnia Daphnia - <i>Ceriodaphnia dubia</i> | 48 hours - |
| ethanol | Acute EC50 7640 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> | 48 hours |

B. Persistence and degradability

| Product/ingredient name | Test | Result | | Dose | | Inoculum |
|---|-------------------|--------|------------------------------------|------|---|-------------|
| -methoxy-1-methylethyl acetate ethylbenzene | - | | adily - 28 days adily - 10 days | - | | - |
| Product/ingredient name | Aquatic half-life | | Photolysis | | Biodeg | Jradability |
| Yene 2-methoxy-1-methylethyl acetate ethylbenzene Distillates (petroleum), hydrotreated light ethanol | - - - | | - - - - | | Readily Readily Readily Readily Readily | , , |

C. Bioaccumulative potential

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Section 12. Ecological information

| Product/ingredient name | LogPow | BCF | Potential | |
|--|--------------|-------------|-----------|--|
| Stoddard solvent | 3.16 to 7.06 | - | High | |
| 1,2,4-trimethylbenzene | 3.63 | 120.23 | Low | |
| Xylene | 3.12 | 7.4 to 18.5 | Low | |
| 2-methoxy-1-methylethyl acetate | 1.2 | - | Low | |
| ethylbenzene | 3.6 | 79.43 | Low | |
| Distillates (petroleum), hydrotreated light | - | 159 | Low | |
| 2-butanone oxime | 0.63 | 5.01 | Low | |
| ethanol | -0.35 | - | Low | |
| cumene | 3.55 | 35.48 | Low | |

D. Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

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

Section 13. Disposal considerations

- A. 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.
- **B.** Disposal 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. 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.

Section 14. Transport information

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raye: 14/1/ Norea (GHS)

| Product code 00334744 | | Date of issue 10/5/2023 (month/day | /year) Version 9.03 | | | | |
|--|--------------------|------------------------------------|---------------------|--|--|--|--|
| Product name AMERCOAT 5450 BLACK Section 14. Transport information | | | | | | | |
| | | | | | | | |
| Additional information | | | | | | | |
| UN | : None identified. | | | | | | |

- : None identified. IMDG IATA : None identified.

F. Special precaution which a user to be aware of or needs to comply with in connection with transport or tranportation

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable.

to IMO instruments

Section 15. Regulatory information

A. Regulation according to ISHA

| ISHA article 117 (Harmful substances prohibited from manufacture) | : None of the components are listed. |
|--|---|
| ISHA article 118 (Harmful substances requiring permission) | : None of the components are listed. |
| Article 2 of Youth Protection Act on Substances Hazardous to Youth | : It is not allowed to sell to persons under the age of 19. |

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL: Solvent naphtha (petroleum), medium aliph. Stoddard solvent 1,2,4-trimethylbenzene Xylene 2-ethylhexanoic acid, zirconium salt carbon black ethylbenzene Distillates (petroleum), hydrotreated light ethanol cumene Fatty acids, C9-13-neo-, cobalt salts neodecanoic acid, cobalt salt

ISHA Enforcement Regs : The following components are listed: cobalt and its inorganic compounds Annex 19 (Exposure standards established for harmful factors)

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Section 15. Regulatory information

| | ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) | : | The following components are listed: stoddard solvent, xylene, zirconium and its compounds | | |
|----|---|---|--|--|--|
| | ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check- up) | : | The following components are listed: Stoddard solvent, Xylene, Zirconium and its compounds | | |
| | Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) | : | The following components are listed: stoddard solvent, xylene, zirconium and its compounds | | |
| В. | Regulation according to Chemicals Control Act | | | | |
| | Article 11 (TRI) | : | The following components are listed: Barium and its compounds, Xylene including o-,m-,p- isomer, Ethylbenzene | | |
| | Article 18 Prohibited (K- Reach Article 27) | : | None of the components are listed. | | |
| | Article 19 Subject to authorization (K-Reach Article 25) | : | None of the components are listed. | | |
| | Article 20 Restricted (K- Reach Article 27) | : | None of the components are listed. | | |
| | Article 20 Toxic Chemicals (K-Reach Article 20) | : | Not applicable | | |
| | Korea inventory | : | 🗚 least one component is not listed. | | |
| | Article 39 (Accident Precaution Chemicals) | ÷ | None of the components are listed. | | |
| C. | <u>Dangerous Materials</u> <u>Safety Management Act</u> | : | Class: Class 4 - Flammable Liquid Item: 4. Class 2 petroleums - Water-insoluble liquid Threshold: 1000 L Danger category: III Signal word: Contact with sources of ignition prohibited | | |
| D. | Wastes regulation | : | Dispose of contents and container in accordance with all local, regional, national and international regulations. | | |
| Ε. | Regulation according to other foreign laws | | | | |
| | Safety, health and environmental regulations specific for the product | : | No known specific national and/or regional regulations applicable to this product (including its ingredients). | | |

Section 16. Other information

| Α. | References | Korean Ministry of Environment; Chemical Control Act Korean Ministry of Labor; Industrial Safety and Health Act NIER Notice Registry of Toxic Effects of Chemical Substances (RTECS) U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information Retrieval) ECOTOX Database System. |
|----|--------------------------------|--|
| В. | Date of issue/Date of revision | : 10/5/2023 |
| С. | Version | : 9.03 |
| | Prepared by | : EHS |

D. Other

Indicates information that has changed from previously issued version.

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.