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SEP 25 2014

Material Safety Data Sheet

Date of printing

: 9/18/2014.

Date of issue

: 9/18/2014

Product and company identification 1.

Prepared by

Akzo Nobel Coatings Inc.

1313 Windsor Ave.

Columbus, OH 43211 US

PRIOR COATED METALS

2233 26TH ST. SW

Prepared for

(614) 294-3361

In case of emergency (Health or Spills):

CHEMTREC (US and Canada) (800) 424-9300

ALLENTOWN, PA 18103-6699 US

ATTN: ACCOUNTS PAYABLE

Product no. : PW8R28477

Product - Class : HAYDON WHITE POLYESTER

Customer Part Number : C/S 1007

Customer ShipTo ID : 0000100090

2. Hazards identification

Physical state

: Liquid.

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Emergency overview

: WARNING!

FLAMMABLE LIQUID AND VAPOR. HARMFUL IF ABSORBED THROUGH SKIN. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER. Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of entry

: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation

: Irritating to respiratory system.

Other effects of inhalation may include: anesthesia, blood effects, bronchitis, CNS effects, cough, dizziness, drowsiness, fatigue, headache, narcosis, weakness,

Ingestion

: No known significant effects or critical hazards.

Other effects of ingestion may include: blood effects, dizziness, fatigue, headache,

Skin

Toxic in contact with skin. Irritating to skin.

Other effects of skin contact may include: dermatitis, discoloration, sensitization,

Effects due to absorption through skin may include: blood effects,

Eyes

: Irritating to eyes.

Potential chronic health effects

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2. Hazards identification

Carcinogenicity : Contains material which can cause cancer. Risk of cancer depends on duration and

level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Target organs : Contains material which may cause damage to the following organs: blood.

This product under certain conditions could release formaldehyde in sufficient quantities to require monitoring under OSHA regulations. Formaldehyde is a known carcinogen.

Medical conditions

: pulmonary conditions, skin disorders, respiratory conditions,

aggravated by over-

exposure

NOTICE: Reports have associated repeated and prolonged OVEREXPOSURE to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents of this package may be harmful or fatal.

See toxicological information (Section 11)

3. Composition/information on ingredients

| <u>Name</u> | CAS number | % by weight | Vapor pressure | Exposure limits |
|--------------------------------|------------|-------------|----------------|--|
| titanium dioxide | 13463-67-7 | 30.50 | Not available. | |
| aromatic solvent | | 17.91 | Not available. | ACGIH TLV (United States). TWA: 100 ppm 8 hours. |
| 1,2,4-trimethylbenzene | 95-63-6 | 7.07 | 0.23 kPa (1.7 | ACGIH TLV (United States). |
| • | | | mm Hg) [room | TWA: 25 ppm 8 hours. |
| | | | temperature] | 1 777 % 20 ppm 0 modro. |
| melamine resin, methylated | 68002-20-0 | 6.18 | Not available. | |
| butyldiglycolacetate | 124-17-4 | 2.28 | Not available. | |
| ethylene glycol monopropyl eth | 2807-30-9 | 1.90 | 0.17 kPa (1.3 | ACGIH TLV (United States). |
| | | | mm Hg) [room | Absorbed through skin. |
| | | | temperature] | TWA: 25 ppm 8 hours. |
| aluminum hydroxide | 21645-51-2 | 1.07 | Not available. | ACGIH TLV (United States). |
| | | | | TWA: 1 mg/m³ 8 hours. |
| calcined ti,ni,sb oxides | 8007-18-9 | 0.84 | Not available. | ACGIH TLV (United States). TWA: 0.05 mg/m³ 8 hours. |
| | | | | OSHA PEL (United States). |
| | | | | TWA: 0.05 mg/m³ 8 hours. |
| парhthalene | 91-20-3 | 0.38 | Not available. | ACGIH TLV (United States). |
| | | | | Absorbed through skin. |
| | | | | TWA: 10 ppm 8 hours. |
| | | | | STEL: 15 ppm 15 minutes. |
| | | | | OSHA PEL (United States). |
| | | | | TWA: 10 ppm 8 hours. |
| chrome antimony titanium buff | 68186-90-3 | 0.36 | Not available. | ACGIH TLV (United States). |
| | | | | TWA: 0.5 mg/m ³ 8 hours. |
| | | | | OSHA PEL (United States). |
| | | | | TWA: 0.5 mg/m³ 8 hours. |
| cumene | 98-82-8 | 0.33 | 1.1 kPa (8 mm | ACGIH TLV (United States). |
| | | | Hg) [room | TWA: 50 ppm 8 hours. |
| | | | temperature] | OSHA PEL (United States). |
| | | | | Absorbed through skin. |
| | | | | TWA: 50 ppm 8 hours. |

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.

4. First aid measures

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.

Eye contact

: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately if symptoms occur.

Skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately if symptoms occur.

Inhalation

: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately if symptoms occur.

Ingestion

: Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. Fire-fighting measures

Flammability of the product

: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Flash point

: Closed cup: 25.56°C (78°F)

Flammable limits

: Lower: 0.6% Upper: 15.8%

Extinguishing media

Suitable

: Use dry chemical, CO2, water spray (fog) or foam.

Not suitable

Do not use water jet.

Special exposure hazards

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.

Hazardous thermal decomposition products

: Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides metal oxide/oxides

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.

UNUSUAL FIRE HAZARDS: During emergency conditions, overexposure to products of combustion may cause a health hazard; symptoms may not be immediately apparent. Obtain medical attention.

Special remarks on fire hazards

: Not available.

Special remarks on explosion hazards

: Not available.

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6. Accidental release measures

Personal precautions

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

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 for cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment.

Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

7. Handling and storage

Handling

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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not enter 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 grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

: Store in accordance with local regulations. Store in 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. 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.

8. Exposure controls/personal protection

Engineering measures

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.

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.

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8. Exposure controls/personal protection

Personal protection

Selection of personal protective equipment (PPE) is to be established by the employer performing a PPE hazard assessment. In the U.S.A, OSHA requires completion of a documented PPE hazard assessment as described in 29 CFR 1910.132.

Respiratory

: Use properly fitted respiratory protection complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Hands

: 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.

Eyes

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin

: 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 protection

: Not available.

9. Physical and chemical properties

Physical state

: Liquid.

Burning time

: Not applicable.

Burning rate

: Not applicable.

Color

: Not available.

Odor

: Not available.

Taste

: Not available.

Molecular weight

: Not applicable.

Molecular formula

: Not applicable.

pН

: Not available.

Boiling/condensation point

: 137 to 292°C (278.6 to 557.6°F)

Melting/freezing point Critical temperature : Not available.

Ortical temperatur

: Not available.

Relative density

: 1.385

Vapor density

: Heavier than air

Volatility

: 32.84% (w/w)

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Physical and chemical properties 9.

Odor threshold

: Not available.

Evaporation rate

: Less than 1. (ethylene glycol monopropyl eth) compared with butyl acetate

Viscosity

: Not available.

lonicity (in water)

: Not available.

Dispersibility properties

: Not available.

Solubility

: Not available.

10. Stability and reactivity

Chemical stability

: The product is stable, under normal conditions of storage and use.

Hazardous polymerization

: Yes.

Conditions to avoid

: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld,

braze, solder, drill, grind or expose containers to heat or sources of ignition.

Other Conditions to avoid: light, allow air blanket above liquid, drying out,

Materials to avoid

: Reactive or incompatible with the following materials: oxidizing materials, acids and

alkalis.

Hazardous decomposition

products

: Not available.

Possibility of hazardous

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

reactions

11. Toxicological information

| Acute toxicity | | | | |
|--|--|------------------------------------|--|---------------------|
| Product/ingredient name 1,2,4-trimethylbenzene | Result LD50 Oral LC50 Inhalation Vapor | Species Rat Rat | Dose 5000 mg/kg 18000 mg/m³ | Exposure 4 hours |
| ethylene glycol monopropyl eth | LD50 Dermal LD50 Oral | Rabbit Rat | 876.48 mg/kg 3089 mg/kg | - |
| butyldiglycolacetate | LD50 Dermal LD50 Oral LC50 Inhalation Vapor | Rabbit Rat Rat | 5640 mg/kg 6500 mg/kg 73500 mg/m³ | 4 hours |
| melamine resin, methylated naphthalene cumene | LD50 Oral LD50 Oral LD50 Dermal LD50 Oral LC50 Inhalation Vapor | Rat Rat Rabbit Rat Rat | 12300 mg/kg 490 mg/kg 10627 mg/kg 1400 mg/kg 39000 mg/m³ | 4 hours |
| Carcinogenicity | | | | |
| Product/ingredient name | | IARC | NTP | OSHA |

| Product/ingredient name IARC NTP | OSHA |
|--|------|
| titanium dioxide 2B | |
| calcined ti,ni,sb oxides 1 Known to be a human | |
| carcinogen. | |
| naphthalene 2B Reasonably anticipated to be a human carcinogen. | |
| chrome antimony titanium buff 2B Known to be a human carcinogen. | |
| cumene 2B - | |

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11. Toxicological information

This product under certain conditions could release formaldehyde in sufficient quantities to require monitoring under OSHA regulations. Formaldehyde is a known carcinogen.

IARC has issued a notice that they will publish a monograph that lists titanium dioxide (TiO2) as possibly carcinogenic to humans (Group 2B) by inhalation (based solely on animal data). Human epidemiology studies do not suggest an increased risk of cancer in humans for occupational exposure to titanium dioxide. According to the IARC summary on titanium dioxide, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint.".

Mutagenicity

Product/ingredient name

Test

Experiment

Result

Not available.

Teratogenicity

Product/ingredient name Not available.

Result

Species

Dose

Exposure

12. Ecological information

Data available upon request.

13. Disposal considerations

Waste disposal

: 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.

14. Transport information

Note: Information contained in this section may vary from the actual shipping description depending on quantity in containers, mode of shipment and use of exemptions.

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|------------------------|-----------|---|---------|-----|-------|---|
| DOT Classification | UN1263 | Paint RQ (xylene, mixed isomers, naphthalene) | 3 | 111 | | RQ: 11697.6lbs (5305. 05kgs) [xylene, mixed isomers] RQ: 26580. 3lbs (12054.5kgs) [naphthalene] |
| TDG Classification | UN1263 | Paint | 3 | Ш | | 7 |
| | | | | | | |

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|---------------------------|------------|--|------------|-----|---------|--|
| 14. Transport information | | | | | | |
| IMDG Class | UN1263 | Paint. Marine pollutant (titanium dioxide, 1,2, 4-trimethylbenzene) | 3 | III | *** | The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. |
| IATA-DGR Class | UN1263 | Paint | 3 | ш | | The environmentally hazardous substance mark may appear if required by other transportation regulations. |

PG*: Packing group

15. Regulatory information

United States

U.S. Federal regulations

: United States inventory (TSCA 8b) : All components are listed or exempted.

(HAPS) Clean Air Act (CAA) 112 regulated toxic substances: xylene, mixed isomers; toluene; ethyl benzene; naphthalene; cumene; ethylene glycol monopropyl eth; butyldiglycolacetate; calcined ti,ni,sb oxides; chrome antimony titanium buff; copper chromite black spinel; formaldehyde; methanol; ethane-1,2-diol

SARA 313

| | Product name | CAS number | Concentration |
|--------------------|--------------------------------|------------|---------------|
| Form R - Reporting | : 1,2,4-trimethylbenzene | 95-63-6 | 7.07 |
| requirements | butyldiglycolacetate / | 124-17-4 | 2.28 |
| • | ethylene glycol monopropyl eth | 2807-30-9 | 1.90 |
| | calcined ti,ni,sb oxides | 8007-18-9 | 0.84 |
| | naphthalene | 91-20-3 | 0.38 |

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

| Ingredient name | <u>Cancer</u> | Reproductive | No significant risk level | Maximum acceptable dosage level |
|--------------------------|---------------|--------------|------------------------------|---------------------------------------|
| titanium dioxide | Yes. | No. | No. | No. |
| calcined ti,ni,sb oxides | Yes. | No | No. | No. |
| naphthalene | Yes. | No. | No. | No. |
| cumene | Yes. | No. | No. | No. |
| ethyl benzene | Yes. | No. | No. | No. |
| methanol | No. | Yes. | No. | No. |
| formaldehyde | Yes. | No. | No. | No. |
| carbon black | Yes. | No. | No. | No. |
| toluene | No. | Yes | No. | No. |

Canada

Canada inventory

: All components of this product are on the CEPA DSL inventory.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

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Regulatory information

International regulations

International lists

: Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined.

Japan inventory: Not determined. Korea inventory: Not determined.

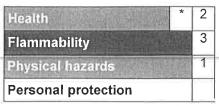
Malaysia Inventory (EHS Register): Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined. Taiwan inventory (CSNN): Not determined.

16. Other information

HMIS III ® Hazardous Material Information System (U.S.A.)



Caution: HMIS III ® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risk, and 4 representing severe hazards or risk. Although HMIS III ® ratings are not required on MSDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS III ® ratings are to be used with a fully implemented HMIS III ${f @}$ program. HMIS III ${f @}$ is a registered mark of the National Paint & Coatings Association (NPCA).

The customer is responsible for determining the PPE code for this material.

Other special considerations : Not available.

Notice to reader

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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^{**} All values in this section reported as percentage by weight, unless otherwise specified.