

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Sketch Co.,Ltd.
Chaco Paper Hall, 3F.
2-25-10 Asakusabashi Taitou-ku Tokyo Japan
TEL+81-3-5825-6503 FAX+81-3-5825-6504

Product Name: HYPER GLASS BARRIER
Product Description: Self-cleaning, hydrophilic &
anti-static electric coating for exterior glasses

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SECTION 2: INGREDIENTS

| <u>Ingredient</u> | <u>C.A.S. NO.</u> | <u>PERCENT</u> |
|---|-------------------|----------------|
| Methanol | 67-56-1 | 40~45 |
| Water | 7732-18-5 | 45~50 |
| Tin oxide | 18282-10-5 | ~0.1 |
| Silicon dioxide | 7631-86-9 | ~2 |
| Tungsten trioxide WO ₃ | 1314-35-8 | ~1 |
| Platinum | 7440-06-4 | ~1 |

This product contains the following toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372:

Methanol or methyl alcohol

SECTION 3: HAZARDS IDENTIFICATION

Applicable categories: Inflammable; extremely poisonous
Danger: Very volatile combustible liquid; easily ignited; easily combines with air to create explosive compound
Risks: Long exposure to vapors harms nervous system, kidneys and liver. Repeated contact with liquid causes a form of dermatitis characterized by dry, cracked skin.

SECTION 4: FIRST AID MEASURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed:

Eye Contact: Without rubbing the eyes, flush with large quantities of water for 15 minutes, including the inside of the eyelids; promptly seek medical attention.

Skin Contact: Wash with soap and flush with large amounts of water. Obtain medical attention. If the product permeates ones clothes, wash contaminated clothing and clean shoes before reuse.

If Swallowed: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

| | |
|--------------------------|-------------------|
| Autoignition temperature | No data available |
| Flash point | 26°C |
| Flammable Limits – LEL | No data available |
| Flammable Limits – UEL | No data available |

5.2 EXTINGUISHING MEDIA AND MEASURES

With small fires, use water, dry chemicals, carbon dioxide and/or dry sand. For larger fires, use bubble method or sprayed water. Using sprayed water may increase the danger by spreading the fire.

If there is a fire in the vicinity of the product, promptly move the containers to a safe location. If moving the containers is impossible, sprinkle water around the storage area to cool it.

When engaged in fire fighting, always wear protective clothing.

Extinguishing media: carbon dioxide, dry sand, dry chemicals and bubble generating material.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Observe precautions from other sections. Evacuate unprotected and untrained personnel from hazard area, including the area downwind from the release. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. Prevent others from entering the vicinity of the release by roping off the area appropriately. Remove anything

in the area that might be an ignition source. Clean up personnel should absolutely wear protective clothing.

If the amount released is small, diluting with large amounts of water and washing away may be appropriate, but only where the water can be recovered. If the amount released is a greater, stop the release with sand or rags and then recover the released material. Because of the danger of environmental danger, caution should be taken to recover all that is possible. Any remaining amounts should be diluted as much as possible with water.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not expose to any flame because of the combustibility of the material and the ease with which it combines with air to form a volatile gas.

Handle with caution because vapor concentration at room temperature may be sufficient to ignite.

Wear appropriate protective clothing to keep away from skin, mucous membranes and the eyes.

Minimize exposure to released vapors or concentrations encountered while working with the material.

Use care to manage static electricity; use appropriate conductive materials in clothes and shoes.

After working with material, thoroughly wash hands and eyes and change clothes.

7.2 STORAGE

Seal after use and avoid locations which might freeze or that have directly sunlight or that might be close to a source of heat. Keep container in well-ventilated area. All electrical equipment near the storage area should have spark and ignition control protective measures.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide airtight containers and local exhaust ventilation for all open containers. Provide and clearly mark near area of use a safety shower and facilities for washing hands and eyes.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Control limits of concentration: WO_3 2 mg/m³ (inhalation)

concentration: WO₃ 8 mg/m³ (total)
 (Exposure limits / biological By Japan Society for Occupational Health
 exposure indices) (2010) as Category 3 dust
 WO₃ 10 mg/m³ (total) TLV-TWA
 By ACGIH(2005) is not classified
 non-soluble particles

Control limits of concentration: Platinum
 concentration: By ACGIH TLV-TWA 0.002mg/m³
 (Exposure limits / biological
 exposure indices)

- 8.2.1. Eye/Face Protection. Avoid eye contact with vapors, mists, or spray. Avoid eye contact. The following eye protection(s) are recommended: Indirect Vented Goggles.
- 8.2.2. Skin Protection. Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials. Rubber gloves, boots and apron are recommended. Gloves made from the following material(s) are recommended: butyl rubber.
- 8.2.3. Respiratory Protection. Avoid breathing of vapors, mists or spray. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Fullface supplied-air respirator.
- 8.2.4. Prevention of Swallowing. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Pale yellow green liquid
 Odor, Color, Grade: unscented, Pale yellow green
 Boiling point: 74.8°C
 Vapor density: 12.3kPa (20°C)
 Specific gravity (20°C): 0.89-0.91
 Flash point: 26°C
 Autoignition point: No data
 Flammable limits: No data
 Combustibility: Volatile, inflammable liquid
 Explosiveness: No data
 Reactivity: Reacts strongly to strong oxidizing agents
 Other: None

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable
 Materials to avoid: Strong oxidizing agents

SECTION 11: TOXICOLOGICAL INFORMATION

| <u>Ingredient</u> | <u>CAS No.</u> | <u>LD50</u> | <u>Other</u> |
|-----------------------------------|----------------|---------------|--------------|
| Methanol | 67-56-1 | 5626mg/kg(rt) | |
| Silicon dioxide | 7631-86-9 | 3160mg/kg(rt) | |
| Tungsten trioxide WO ₃ | 1314-35-8 | 840mg/kg(rt) | |

No additional information is presently available about the risks of the mixture of these ingredients in the product.

SECTION 12: ECOLOGICAL INFORMATION

Care should be taken to avoid release into the environment because of concerns of damage to the environment.

Take care to prevent release of the product or wash water onto the ground, into the water supply or into the atmosphere.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal method. Disposal should be entrusted to an authorized industrial waste handler. Do not permit rinse water to be released into the water supply.

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

Avoid rough handling that might cause the containers to break.

United Nations Number: 1230
 United Nations Class: 3 (Flammable Liquids)

SECTION 15: REGULATORY INFORMATION

Act on the Evaluation of
 Chemical Substances and Existing chemical substances
 Regulation of Their WO₃: 1-1178
 Manufacture, etc

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. SKETCH MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the SKETCH product is fit for a particular purpose and suitable for user's method of use or application. It is essential that the user evaluate the SKETCH product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.