



ShinHan Art Materials Inc.

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT and COMPANY IDENTIFICATION

ShinHan Art Materials Inc.

16-54, Bulkwang-dong, Eunpyung-gu,

Issue Date: 08/12/04

Seoul, 122-847 Korea

MSDS No.: 040812

Phone: (02)357-2651

Rev: A

Preparer: Steven Ahn

Product Name: ShinHan Artists' Oil Color

ShinHan Linseed Oil

ShinHan Poppy Oil

ShinHan Sunflower Oil

Read the entire MSDS for a complete hazard assessment.

SECTION 2: COMPOSITION/INFORMATION on INGREDIENTS*

CAS Number % Conc[†] Ingredient Name

Mixed

SECTION 3: HAZARDS IDENTIFICATION*

*As defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

See Section 8 for exposure guidelines & Section 11 for toxicology and ingredient specific information.

***** **EMERGENCY OVERVIEW** *****

RESPIRATORY IRRITANT.

EYE CORROSIVE. CORROSIVE TO THE
GASTROINTESTINAL TRACT. SEVERE SKIN
IRRITANT. SKIN SENSITIZER.

POTENTIAL HEALTH HAZARDS

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- Eye: This product is eye corrosive based on its pH.
- Skin: This product is severe skin irritant. The acute dermal toxicity of this product is greater than 1000 mg/kg. This product is not toxic by skin absorption. This product may induce skin sensitization in humans.
- Inhalation: Vapors and/or aerosols of this material will probably irritate mucous membranes, eyes, nose, and respiratory passages.
- Ingestion: Based on pH, this material will cause chemical burns of the mouth, pharynx, esophagus, and stomach in humans, following ingestion of this material. Injury may be severe and cause death. The acute oral toxicity of this material is between 500 and 5000 mg/kg. Relative to other materials, this material is classified as slightly toxic by ingestion.
- Other: 1,2-Benzisothiazolin-3-one: The biocide component can induce skin sensitization.

SECTION 4: FIRST AID MEASURES

General First Aid Procedures

Eyes:

Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used at this time. Continue the flushing for an additional 15 minutes if a physician is not immediately available.

Skin:

Remove contaminated clothing and footwear while under a safety shower. Wash off of skin with plenty of soap and water. Get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

Ingestion:

DO NOT INDUCE VOMITING. Give one or two glasses of water to drink and

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refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

Inhalation:

Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

Note to Physician:

Mucosal injury following ingestion of this potentially corrosive material contraindicates the induction of vomiting.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: Does not flash

Upper Flammability Limit (UFL): No Data

Lower Flammability Limit (LFL): No Data

Autoignition Temperature: No Data

Products of combustion:

Combustion products: Carbon oxides, nitrogen oxides, ammonia, sulfur oxides.

Extinguishing media:

Water fog, foam, carbon dioxide, dry chemical, halogenated agents.

Fire fighting instructions:

Wear self-contained breathing apparatus with full facepiece and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill procedures:

Wear skin, eye, and respiratory protection during cleanup.

Contain spill.

Soak up material with absorbent and shovel into a chemical waste container.

Keep out of sewers and drains.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES)

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permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate water by cleaning of equipment or disposal of wastes.

SECTION 7: HANDLING and STORAGE

Handling:

Avoid breathing vapors or aerosols.

Prevent skin and eye contact.

Observe recommended exposure limits.

A sensitized individual should not be exposed to the product which caused the sensitization.

Storage:

Do not store near feed, food, or within the reach of children.

Store in a tightly sealed container away from incompatible materials.

Incompatible with alkaline materials. Attacks mild steel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines:

No ACGIH TLV or OSHA PEL is assigned to this mixture. Control of exposure to below the PEL for the ingredients may not be sufficient.

Minimize exposure in accordance with good hygiene practice.

1,2-Benzisothiazolin-3-one: Avecia Biocides has adopted an Occupational Exposure Limit of 0.1 mg/m³ for 1,2-Benzisothiazolin-3-one.

Sodium hydroxide: The ACGIH STEL for sodium hydroxide is 2 mg/m³, 8-hour TWA, ceiling. The OSHA PEL for sodium hydroxide is 2 mg/m³, 8-hour TWA.

Engineering controls:

Use permitted ventilation adequate to maintain safe levels.

PROTECTIVE EQUIPMENT

Respiratory protection:

If needed, use NIOSH certified respirator for organic vapors, mists and fumes.

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Protective clothing:

Take all precautions to prevent skin contact. Use gloves, arm covers and apron determined to be impervious under the conditions of use. Additional protection, such as full body suit and boots, may be required depending on conditions.

Remove contaminated clothing and wash before rewearing.

Wash separately from other laundry.

Eye protection:

Chemical tight goggles and full faceshield.

Other:

Eyewash station and safety shower in work area.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Mixed

Odor: Bland

Odor Threshold: No Data

Boiling Point: 221°F, 105°C

Decomposition Temperature: No Data

Melting Point: No Data

Vapor Pressure (mm Hg at 20°C): 9.7000

Vapor Density (air = 1): No Data

Solubility in Water: Dispersible

Solubility in Other: No Data

Octanol/Water Partition Coefficient: No Data

pH: 12.80

Specific Gravity: 1.09 @ 20°C

Bulk Density: No Data

% Volatile by Volume: No Data

VOC (%): No Data

Viscosity: ~8.0 mPas @25°C

SECTION 10: STABILITY and REACTIVITY

Chemical Stability

Stable under normal conditions.

Conditions to avoid:

None known.

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Incompatibility:

Alkaline materials. Attacks mild steel.
Strong oxidizing agents, acids, reducing agents.

Hazardous polymerization:

Not known to occur.

Hazardous decomposition products:

Carbon oxides, nitrogen oxides, ammonia, sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Contact the addressee in Section 1 for product toxicology information.

Other effects of overexposure:

1,2-Benzisothiazolin-3-one: The biocidal active-ingredient used in this product has the potential to induce human skin sensitization.

Regulated carcinogen(s):

This product contains no components present at concentrations equal to or greater than 0.1% listed by IARC, OSHA, NTP or ACGIH as a carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

The biocidal active ingredient, BIT, is toxic to fish (96 hr. LC50 value 5-50 mg/L) and very toxic to algae (72 hr. EC50 value 0.37 mg/L).

Environmental fate:

BIT is not likely to bioaccumulate; there is evidence of photodegradation in water and soil.

Other:

BIT is broken down in sewage treatment at concentrations <5 ppm.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal method:

It is toxic to fish and spills must be detoxified by biological

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or chemical means. Aerobic sewage treatment organisms will metabolize the active ingredient in concentrations of less than 5 ppm (25 ppm PROXEL® XL2). The half-life in an aerobic sewage treatment plant is about 50 minutes. The metabolites are not toxic to fish.

Spills of more than 100 kg should be detoxified by the following chemical procedure:

1. Neutralize spill by adding 1 gallon of 10% (wt./wt.) sodium bisulfite solution per pound of spilled material. The 10% solution of sodium bisulfite can be prepared by mixing 1 part of sodium metabisulfite with 9 parts of cold water and stirring for 15 minutes until dissolution is complete. The pH of the sodium bisulfite solution should be adjusted to 6.5 by adding 1M sodium hydroxide. Refer to the manufacturer's MSDS for information on the hazards and proper use of sodium metabisulfite and sodium hydroxide.

2. Test for completion of the reaction by using 10013 Merckoquant Sulfite Test Strips. The reaction is complete when excess bisulfite can be detected. If bisulfite cannot be detected, add 20% of the original volume of the deactivating solution used, wait 20 minutes and repeat the test.

Detoxified waste is not a hazardous waste under RCRA.

Container disposal:

Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container using appropriate solvents (e.g. triple rinsing). Then offer for recycling/ reconditioning or puncture or otherwise destroy empty container before disposal.

SECTION 14: TRANSPORT INFORMATION

This material is regulated by the US DOT.

Proper Shipping Name is: Caustic Alkali Liquids, n.o.s.(contains sodium hydroxide/1,2-Benzisothiazol-3-one)

UN ID Number is:

Special Provisions: No Data

Hazard Class:

Additional Hazard Class: No Data

Additional Hazard Class: No Data

Hazard Packing Group: 2

DOT Hazard Information

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Explosive: No

Explosive Class: No Data Description: No Data

Skin Corrosive: No

Metal Corrosive: No

Poisonous: No

SECTION 15: REGULATORY INFORMATION

TSCA (Toxic Substances Control Act):

All ingredients are on the TSCA Chemical Substances Inventory.

This product is meant to be used as a FIFRA-regulated pesticide and is exempt from TSCA regulation when used as such. Do not use for other purposes.

SARA Title III (Emergency Planning and Community Right-To-Know Act):

313 Reportable ingredients:

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

Canadian Regulations:

CEPA (Canadian Environmental Protection Act): All ingredients are on the DSL (Domestic Substances List).

WHMIS Classifications:

Class D, Division 2B, Toxic.

The New Jersey Right To Know Trade Secret Number(s) is:

Proprietary Ingredient 510390490-5015P Inert ingredient 510390490-5069P