



MATERIAL SAFETY DATA SHEET (UV CURABLE PAINTS)

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : UV CURABLE PAINTS

Chemical Description : A blend of Acrylic / Epoxy / Polyester Oligomer, reactive diluents with initiator

Supplier : MAS Paints & Chemicals Industry.

Telephone & Fax No : 00971 - 06 - 5311777, 00971 - 06 - 5311330

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT NAME	CAS NUMBER	%COMPOSITION (BY WT.)
Oligomer	Not assigned	Proprietary
Acrylic / Polyester # 1	Proprietary	Proprietary
Acrylate Ester # 2	Proprietary	Proprietary
Photoinitiator	Proprietary	Proprietary

3. HAZARD IDENTIFICATION

WARNING PHYSICAL HAZARDS:

ACUTE HEALTH EFFECTS:

Unstable (reactive) upon depletion of inhibitor

Suspect severe skin irritation hazard

Suspect eye irritation hazard

Suspect skin sensitisations hazard

Suspect respiratory tract irritation hazard

Suspect skin absorption hazard

Suspect slight ingestion hazard.

4. FIRST AID MEASURES

Contact with skin

: Immediately remove contaminated clothing. Wash skin thoroughly with mild soap / water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Contact with eyes

: in case of eye contact immediately rinse with clean water for 20 - 30 minutes. Retract eyelids often. Obtain emergency medical attention.

Swallowing	: if swallowed, give lukewarm water (pint) if victim completely conscious / alert. Do not induce vomiting / risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.
Inhalation	: if overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

5. FIRE FIGHTING MEASURES

Flash Point Method = (Estimated)

AUTOIGNITION TEMP. METHOD = N / DA

GT 93C / 200F

Flammable limits (% Volume in Air)

Lower : N / DA UPPER: N / DA

FIRE AND EXPLOSION HAZARDS

High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerising reaction generating heat / pressure. Closed containers may rupture or explode during runaway polymerisation.

EXTINGUISHING MEDIA

Dry Chemicals

CO2

Water spray

Foam

Water fog

SPECIAL FIREFIGHTING PROCEDURES:

Do not enter fire area without proper protection. See section 4 decomposition products possible. Fight fire from safe distance / protected location. Heat / impurities may increase temperature / build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries. Water may be ineffective in fire fighting due to low solubility. Use water spray / fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure notify authorities if liquid enters sewer / public waters.

6. ACCIDENTIAL RELEASE MEASURE

Measures for Personal safety : Use a mask, gloves and protective clothing.

Environmental Measures : Limit leakages with earth or sand.

: Eliminate all unguarded flames and possible sources of ignition. Do not smoke.

: If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning Methods : Rapidly recover the product. To do so, wear a mask and protective clothing.

: If the product is in a liquid form. Stop it from entering the drainage system.

: Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.

: After the product has been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Handling precautions	: Avoid contact and inhalation of the vapours. See, too, paragraph 8 below. : Do not eat or drink while working. : Do not smoke while working.
Storage Conditions	: Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Instructions as regards storage premises	: Cool and adequately ventilated.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY PROTECTION:

If this material is handled at elevated temperature or under mist forming conditions, NIOSH / MSHA approved respiratory protection equipment should be used.

EYE PROTECTION:

Eye protection such as chemical splash goggles and / or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapour. Contact lenses should not be worn.

KIN PROTECTION:

Impervious protective suit with gloves, boots and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

ENGINEERING CONTROLS:

If handling results in aerosol or vapour generation, local exhaust ventilation is recommended.

OTHER HYGIENIC PRACTICES

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

OTHER WORK PRACTICES:

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing / wash thoroughly before reuse. Shower after work using plenty of soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour	: Clear and pigmented.
Odour	: Acrylic
Boiling point	: N / DA
Flash point	: 93 °C

Autoignition	: N / DA
Vapour pressure	: N / DA
Relative density	: 1.00 to 1.5 Kg / ltr @ 20 °C
Viscosity	: 30 poise @ 25 °C
Solubility in water	: Negligible
Stability	: Stable
Hazardous Polymerization	: May occur.

10. STABILITY AND REACTIVITY

CONDITIONS AND MATERIALS TO AVOID:

High temperatures, localized heat sources (ie, drum or band heaters), oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing;

Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen scavengers.

HAZARDOUS DECOMPOSITION PRODUCTS:

Acrid smoke - fumes / carbon monoxide / carbon dioxide and perhaps other toxic vapours may be released during a fire involving this product.

11. ECOLOGICAL INFORMATION

Adopt good working practices. So that the product is not released into the environment.

12. DISPOSAL CONSIDERATIONS

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED:

Spilled or released materials may polymerise and release heat / gases. Extinguish all ignition sources and ventilate area. Wear protective equipment during clean - up. Dike and recover large spill. Soak up small spill with inert solids (such as vermiculite, clay) and sweep / shovel into vented disposal container. Wash spill area with a strong detergent and water solution, rinse with water but minimize water use during clean - up. For spills on water, contain, minimize dispersion and collect. Dispose / report per regulatory requirements.

WASTE DISPOSAL METHODS:

Non - contaminated, properly inhibited product is not a RCRA hazardous waste. However, contaminated product / soil / water may be RCRA / OSHA hazardous waste due to potential for internal heat generation (see 40 CFR 261 and 29 CFR 1910). It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Comply with all applicable federal, state and local regulations. Use registered transporters. Disposal options include land filling solids at permitted sites; fuel blending or incineration liquids. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade; avoid overloading / poisoning plant biomass. Assure effluent complies with applicable regulations.

13. LABEL INFORMATION

USE STATEMENT

FOR INDUSTRIAL USE ONLY

SIGNAL WORD

WARNING

PHYSICAL HAZARDS

UNSTABLE (REACTIVE) UPON LOSS OF INHIBITOR

HEALTH HAZARDS

MAY CAUSE SEVERE SKIN IRRITATION

MAY CAUSE EYE IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION

PRECAUTIONARY MEASURE

HAZARDOUS POLYMERIZATION MAY OCCUR UPON DEPLETION OF INHIBITOR.

DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.

DO NOT USE DRUM HEATER TO FACILITATE HANDLING.

AVOID BREATHING VAPORS / MISTS.

AVOID CONTACT WITH EYES, SKIN AND CLOTHING.

USE ONLY WITH ADEQUATE VENTILATION / PERSONAL PROTECTION.

WASH THOROUGHLY AFTER HANDLING

KEEP CONTAINER CLOSED WHEN NOT IN USE.

BEFORE USING PRODUCT, READ MATERIAL SAFETY DATA SHEET (MSDS).

14. SUPPLEMENT

NPCA - HMIS RATING

Health 2

Flammability 1

Reactivity 2

Personal protection D

**Respiratory protection may be necessary depending on conditions of use.

CHRONIC HEALTH EFFECTS DATA:

No chronic health effects data are available for this product as a whole. However, there is information on two of its components.

The acrylate ester I has been reported to be mutagenic in the mouse lymphoma assay, but negative in the Ames test. A dermal carcinogenicity study was negative.

The acrylate ester II received positive results in the mouse lymphoma test, but equivocal results in the Ames test. An 80-week carcinogenicity study in mice showed no increased incidence of skin or visceral tumours. This ester was not fetotoxic or teratogenic when administered orally to mice at a maternally toxic dose.

In general, acrylates are not active in the Ames mutagenesis assay but are positive in the mouse lymphoma assay. The specificity of the mouse genotoxic response from acrylates is subject to discussion and may be an aberrant response of the test system.

15. REGULATORY INFORMATION:

TSCA STATUS

TSCA Status: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This information only concerns the above-mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

This MSDS cancels and replaces any preceding release.

Editor : **MAS Paints & Chemicals Industry.**
