SAFETY DATA SHEET

Section 1 - Identification

Product Identifier: UV High Gloss Topcoat
Formula Number: UV8032
Recommended Use: UV-cured coating for roll/tower applicators
Restrictions: None known.
Distributor:
Quest Inks & Coatings
2401 Anson Dr
Mississauga, ON

Section 2 - Hazards Identification

Emergency Overview:
OSHA Hazards:

While this is not considered hazardous by the OSHA Hazard Communication standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of the product.

Target Organs: Skin, Eye, Lens or Cornea

Other hazards which do not result in classification:

Not Available

GHS classification:

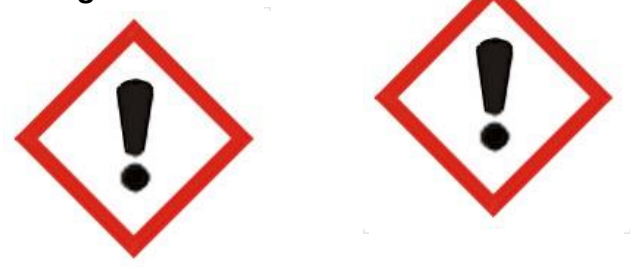
Eye Irritation (Category 2A)

GHS Label Elements, including precautionary statements:

GHS classification:

Eye Irritation (Category 2A)	May cause allergic skin reaction (Category 1B)

Pictogram:



Signal Word:

Warning	Warning

Precautionary statements:

Hazard Statement(s):

H319: Causes serious eye irritation	H317: May cause an allergic skin reaction		

Precautionary Statement(s):

P262: Do not get in eyes, on skin, or on clothing.	P262: Do not get in eyes, on skin, or on clothing.		

Potential Health Effects:

Inhalation:	Exposure to decomposition products may cause health hazards. Serious effects may be delayed following exposures.
Skin:	May cause mild skin irritation.
Eyes:	May Cause mild eye irritation.
Ingestion:	No known significant effects or health hazards.

Section 3 - Composition/Information on Ingredients

Product Definition: Mixture

Component:	CAS Number	Percentage Concentration			
Difunctional Monomer	Proprietary	30.0	to	44.0
Epoxy Acrylate	N/A	24.0	to	36.0
Trifunctional Monomer	Proprietary	13.0	to	19.0
Benzophenone	119-61-9	6.0	to	8.0
Amine Synergist	Proprietary	5.0	to	7.0

Section 4 - First Aid Measures

General Advice:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

if Inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration of oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if symptoms occur. Maintain an open airway. Loosen tight clothing such as collar, tie, belt, or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. Exposed person may need to be kept under medical surveillance for 48 hours. Consult a physician.

in case of skin contact:

Wash off with soap and planty of water or use recognized skin cleanser. Consult a physician if irritation occurs. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

In case of eye contact:

Immediately flush eyes with plenty of water for 15 minutes, occasionally lifting the uper and lower eyelids. Check for and remove and contact lenses. Get medical attention if irritation occurs.

If swallowed:

Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. 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 by medical personnel. If vomiting occurs, the head should be kept lower so that the vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in a recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Consult a physician.

Effects of overexposure:

Generally classified as non-toxic. Excessive inhalation of solvent fumes may cause respiratory tract irritation, headache, and dizziness. Prolonged contact with skin and eyes may cause irritation and/or dermatitis. Ingestion may cause digestive tract irritation, headaches, and dizziness.

Primary Route(s) of Entry:

DERMAL, INHALATION OF FUMES

Section 5 - Fire Fighting Measures

Conditions of Flammability:

Emits irritating fumes when heated to decomposition. These products include carbon oxides, nitrogen oxides, halogenated compounds. Exposure to decomposition products will cause a health hazard. Fire will cause dense black smoke.

Suitable Extinguishing Media:

Extinguishing Media: **FOAM:** Yes **ALCOHOL FOAM:** No **WATER FOG:** No

CO2: Yes **DRY CHEMICAL:** Yes **OTHER:** None

Special Firefighting Procedures:

Water may be used to cool closed containers.

Special protective equipment for firefighters:

Wear self contained breathing apparatus (SCBA) with a full-face piece operated in a positive pressure mode for fire fighting if necessary.

Hazardous combustion products:

Hazardous decomposition products formed under fire conditions: Carbon Oxides, nitrogen oxides, halogenated compounds.

Further information:

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.

Section 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (See section 8).

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Avoide dispersion of 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 and materials for containment and cleaning up:

If emergency personnel are unavailable, contain spillage. Move containers from spill area. Approach release from upwind.Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Procedure when material is spilled or released:

Remove all sources of ignition. Avoid breathing concentrated vapors. Ventilate area. If material is liquid, add absorbent and scoop into disposal container. If material is a paste, scoop into disposal container. Wash or steam clean area.

Waste Disposal Method:

Land fill or incinerate in accordance with Local, State, and Federal regulations.

Section 7 - Handling and Storage

Precautions for safe handling:

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in area where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative. If made from a combustible material, keep tightly closed when not in use. Empty containers retain residue and can be hazardous. Do not reuse container.

Conditions for safe storage:

Store in accordance with local regulations. Store in original container. Protect from direct sunlight in dry, cool and wellventilated area, away from incompatible materials (see sction 10) and food or drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed adn kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8 - Exposure Controls/Personal Protection

Engineering Measures:

No specific ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne concentrations. If this product contains ingredients with exposure limits, use process exposure, local exhaust ventilation or other engineering controls to keep workers exposure below any recommended or statutory limits. Consult local authorities for acceptable exposure limits.

Personal Protective Equipment:

Respiratory protection:

When risk assesment shows air-purifying respirators are appropriate for a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and safe working limits of the selected respirator. Use adequate ventilation as a good industrial practice.

Hand protection:

Where risk assesment shows, handle with chemical-resistant, impervious gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory or workplace practices. Wash and dry hands.

Eye protection:

Safety eyewear coplying with approved standards should be used when a risk assesment indicates that it is necessary to avaoid exposure to liquid splashes, mist, gasses or dusts.

Skin and body protection:

Personal protective equipment for 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. Chemical-resistant, impervious gloves complying with approved standards should be worn at all times when handling chemical products f risk assessment indicates. >8 hour/hours (breakthrough time): synthetic or rubber gloves.

Hygiene measures:

Wash hands, forearms and face thoroughly after handling. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

Ventilation:

Provide general dilution or exhaust ventilation in volume and pattern to keep TLV of most hazardous ingredient (if any - see 'Hazardous Ingredients' section) below PEL.

Protective Gloves: Required for prolonged or repeated contact.

Respiratory protection: Use BOM approved respirators or hoods in confined areas.

Eye Protection:

Safety goggles or face shield under circumstances where material may splash.

Other Protective Equipment:

Prevent prolonged skin contact with contaminated clothing.

Section 9 - Physical and Chemical Properties

Appearance:

Form: Paste

Color: Clear

Safety Data:

pH: no data available

Melting/Freezing Point: no data available

Boiling Point: 212 F / 100 C

Flash Point: 271 F / 133 C

Ignition Temperature: no data available

Auto ignition Temperature: no data available

Lower Explosion Limit: 1.1

Upper Explosion Limit: n/av

Vapor Pressure: no data available

Density: 9.07

Water Solubility: miscible

Specific Gravity: 1.09

Volatiles (% w/w): 6.09

Volatiles (lb/gal): 0.55

Volatiles Determination Method: Estimated

Odor: Mild/acrylate

Odor Threshold: no data available

Evaporation Rate: slower than butyl acetate.

Section 10 - Stability and Reactivity

Chemical Stability:

Polymerization will not occur.

Possibility of Hazardous Reactions:

No data available

Conditions to Avoid:

Strong oxidizing agents, sources of ignition, and excessive heat.

Hazardous decomposition products:

Under normal conditions of storage and use hazardous decomposition products should not be produced. Other decomposition products - no data available

Product is:

STABLE

Section 11 - Toxicological Information

Acute Toxicity:

Product/Ingredient name:

Oral LD 50	Inhalation LC 50	Dermal LD 50
No data available	No data available	No data available

Other information on acute toxicity:

Skin corrosion/irritation:

No data available

Serious eye damage / eye irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ Cell mutagenicity:

No data available

Carcingenicity:

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as a Known or anticipated carcinogen by IARC.

NTP:

Feeding study in rats & mice carried out for the National Toxicology Program (NTP) by Battelle Laboratories, indicate a statistically significant carcinogenic effect in the spleen of male rats at high dose levels.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is dentified as a Carcinogen or potential carcinogen by OSHA.

FDA: No component of this product present at levels greater than or equal to 0.1% is identified as a Carcinogen or potential carcinogen by FDA.

Reproductive Toxicity

No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Aspiration hazard:

No data available

Potential health effects:

Inhalation:

No known significant effects or critical hazards.

Ingestion:

No known significant effects or critical hazards.

Skin:

Slight to significant irritation to the skin.

Eyes:

May Cause mild eye irritation.

Signs and symptoms of exposure:

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes. Fine dust or mist clouds may form explosive mixtures with air.

Synergistic effects:

No data available

Additional Information:

None

Section 12 - Ecological Information

Ecological Toxicity:

Product/Ingredient name:	Result:	Species:	Exposure
Distillates (Petroleum) hydrotreated light (FP 105C)	Acute LC50 2200 ug/L fresh water	Fish- Leponis macrochius- 35 to 75 mm	4 days

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Mobility in soil:

No data available

PBT and vPvB assesment:

No data available

Other adverse effects:

Ignition may release carbon dioxide and carbon monoxide (CO2 & CO) gases.

Section 13 - Disposal Considerations

Product:

The generator of waste should be avoided or minimized whenever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solution and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

RCRA Classification:

Non-hazardous waste

Other Disposal Information:

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements.
The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. t is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14 - Transport Information

DOT:

Not regulated

IMDG:

Not dangerous goods

IATA:

Not dangerous goods

Section 15 - Regulatory Information

HCS Classification: Not regulated **TSCA**

8(b) Inventory: Listed

US Federal Regulations:

United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found
SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found
Clean Water Act(CWA)307: No products were found.
Clean Water Act(CWA)311: No products were found.
Clean Air Act(CAA)112 accidental release prevention: No products were found.
Clean Air Act(CAA)112 regulated flammable substances: No products were found.
Clean Air Act(CAA)112 regulated toxic substances: No products were found.

SARA 313 Components:

SARA 313: This Material(s) does not contain any chemical components with known CAS number that exceed the threshold (De Minimis) reporting levels established by SARA Title, Section 313.

State Regulations:

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: None of the components are listed.
Michigan Critical Material: None of the components are listed.
New Jersey Spill: None of the components are listed.
Rhode Island Hazardous Substances: None of the components are listed.
California Prop. 65 Components: None of the components are listed.

International Regulations:

United States:

This product and/or its components are TSCA listed.

Canada:

This product and/or its components are DSL Listed or acceptable under CEPA regulations.

Europe:

This product and/or its components are listed under the European Inventory of Existing Chemical Substances.

Australia (AICS):

This product and/or its components are listed in the Australia Chemical Substance

Japan (ENCS):

At least one component is not listed.

South Korea (KECI):

At least one component is not listed.

Philippines (PICCS):

At least one component is not listed.

Section 16 - Other information, including date of preparation or last revision

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Date of Preparation: Jan 15, 2019

Prepared By: A. Suthar

Product Type: Varnish

The information contained herein is believed accurate as of the date stated. However, we make no warranty with respect thereto and disclaim all liability for reliance thereon. Information furnished herein is for individual review and determination of suitability for each specific purpose or use.

Product components are included in the TSCA list of raw materials and the Canadian DSL.

HMIS

HAZARD RATINGS			
Minimal 0 Slight	1	HEALTH:	2
Moderate	2	FLAMMABILITY:	1
Serious	3	PHYSICAL HAZARD:	1
Severe	4	PERSONAL PROTECTION	B -