

1. Chemical Product and Company Identification

Trade name : UVolve™
Chemical Family : Multifunctional acrylate
CAS Number : Ingredients not precisely identified are proprietary.

Manufacturer : DSM Desotech Inc.
 1122 St. Charles Street
 Elgin IL 60120
 Tel: 847-697-0400

Emergency telephone number

DSM Desotech : (847)697-0401 (During normal business hours)
CHEMTREC (within the U.S.A.) : (800)424-9300 (24 hour)
CHEMTREC (International) : (01)(703)527-3887 [USA] (24 hour)

Hazardous Material Information System (U.S.A.)

Health	*	3
Fire Hazard		1
Reactivity		1
Personal Protection		XH

The PPE (Personal Protection Equipment) designation in the HMIS is provided for use by employees at DSM Desotech sites only. Other users of this product are encouraged to evaluate the hazards of the product and assign PPE that is applicable to their specific situations.

2. Composition/Information on Ingredients

Name	CAS #	% by Weight
Multifunctional acrylate(s)		50-110
Photoinitiator(s)		1-10

3. Hazards Identification

Physical State and Appearance : Liquid. (Viscous liquid.)
Potential Acute Health Effects
Routes of Entry : Skin, eyes and respiratory tract

- **Skin Contact** : MAY CAUSE SKIN IRRITATION. Avoid prolonged or repeated contact with skin. May cause skin sensitization. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
- **Eye Contact** : Avoid contact with eyes. Contact with eyes may cause severe irritation and possible burns. Corrosive to eyes.
- **Inhalation** : May cause irritation of respiratory tract, coughing, shortness of breath. Vapors and aerosol can produce mucous membrane, nose and throat irritation.
- **Ingestion** : May cause mild gastric irritation, abdominal spasms, nausea and faintness.

[See Toxicological Information \(section 11\)](#)

4. First-Aid Measures

- **Skin Contact** : After contact with skin, wash immediately with plenty of water. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap.
- **Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- **Inhalation** : Remove victim from area of exposure if possible. Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.
- **Ingestion** : Do not induce vomiting unless directed by a physician. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. If vomiting occurs, keep head lower than hips to help prevent aspiration.

5. Fire Fighting Measures

Flammability	: Flammable in presence of open flames and sparks
Flash Points	: CLOSED CUP: Higher than 93.3°C (200°F). (Pensky-Martens.)
Extinguishing Media	: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special fire-fighting procedures	: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Unusual fire/explosion hazards	: In case of fire toxic fumes might be formed. In case of fire and/or explosion do not breathe fumes. Containers may rupture from pressure build-up.
Hazardous thermal (de)composition products	: POSSIBLE Products of Combustion: carbon oxides (CO, CO2), nitrogen oxides (NO, NO2)
Protection of fire-fighters	: Be sure to use an approved/certified respirator or equivalent.
Auto-ignition Temperature	: Not determined.
Lower explosion limit	: Not determined.

6. Accidental Release Measures

Small spill and leak	: Wear appropriate protective clothing to prevent skin contact. Wear appropriate respirator when ventilation is inadequate. Avoid breathing vapors of this product. Avoid contact with skin and eyes. Avoid all possible sources of ignition (spark or flame). Keep unnecessary people away from spill area. Clean up spills immediately. Absorb with liquid-binding material (sand, diatomite, universal binders, or spill kit). Place in suitable clean, dry containers for disposal by approved methods.
Large spill and leak	: Do not clean-up or dispose except under supervision of a specialist. Eliminate all ignition sources. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Keep unnecessary people away from spill area. Follow company spill response procedures. Clean up spills immediately. Wear protective eyeglasses or chemical safety goggles and face protection. Contact lenses are not protection devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses. Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear. Wear appropriate protective clothing to prevent skin contact. Place spilled material in an appropriate container for disposal. Dispose of according to all federal, state and local applicable regulations.

7. Handling and Storage

Handling	: Keep away from heat. Keep away from direct sunlight or strong incandescent light. Keep away from sources of ignition. Ground all equipment containing material. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Keep away from incompatibles such as oxidizing agents. Do not breathe gas/fumes/vapor/spray. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wear appropriate protective clothing to prevent skin contact. After handling, always wash hands thoroughly with soap and water. Avoid contact with spilled materials and runoff with soil and surface waterways.
Storage	: Keep container tightly closed in a cool, well-ventilated place. Store between 15-30°C. Keep away from sources of ignition. Empty containers retain product residue and can be hazardous.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits : Not determined.

Engineering Controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Ventilation : Good general ventilation should be sufficient to control airborne levels.

Respiratory system : Wear appropriate respirator when ventilation is inadequate.

Skin Contact : Use chemical resistant, impervious gloves. (Nitrile.) Work uniform or laboratory coat.

Eyes : Safety glasses with side shields or chemical splash goggles.

Other information : Not available.

9. Physical and Chemical Properties

Physical State and Appearance	: Liquid. (Viscous liquid.)
Color	: Colorless to light yellow.
Odor	: Characteristic.
Boiling Point	: Not determined.
Vapor Density	: >1 (Air = 1)
Evaporation rate (butyl acetate = 1)	: <1 compared to Butyl acetate.
Specific Gravity	: 1.1 (Water = 1)

10. Stability and Reactivity

Stability	: The product is stable.
Hazardous Polymerization	: Not likely under normal conditions.
Incompatibility, Conditions to avoid, Materials to avoid	: Keep away from direct sunlight or strong incandescent light. Keep away from heat. Incompatible with peroxides, oxidizing agents.
Hazardous Decomposition Products	: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

11. Toxicological Information

Routes of Entry Skin, eyes and respiratory tract.

Toxicological Information Acute oral toxicity (LD50): 2000 mg/kg [Rat]. (Photoinitiator)
Acute dermal toxicity (LD50): >1000 mg/kg [Guinea pig]. (Photoinitiator)
Acute toxicity of the vapor (LC50): >1 mg/l 4 hour(s) [Rat]. (Photoinitiator)

Remarks: Any information in this section is for component(s) contained in this product.

Multifunctional acrylate Two mutagenicity assays (mouse forward lymphoma and sister chromatid exchange) conducted with this material were positive, indicating this substance may have mutagenic potential. An Ames assay for mutagenicity was negative.

Photoinitiator Chronic Health Effects Information:

Effects on the liver, kidney and blood have been seen in rodents after repeated exposure to this material via oral administration. Effects on the liver were also seen in guinea pigs after repeated inhalation exposure. This material did not induce tumor formation after repeated skin application in mice and rabbits. No genetic changes were reported in standard tests using bacterial cells and animals.

WEEL= 5mg/m³, skin 8 hours

Photoinitiator Subchronic Toxicity:

During a 28-day oral gavage study, the no-observable-effect-level (NOEL) was determined to be 50 mg/kg, with the NOAEL considered to be 300 mg/kg, the highest level tested

Chronic effects on humans **CARCINOGENIC EFFECTS:** Classified None. by IARC, None. by NTP, None. by OSHA [UVolve™ Clear Topcoat].

Remarks: Any information contained in this section is for component(s) contained in this product.

Not available.

Acute effects on humans May cause skin, eye and respiratory irritation.

Remarks: Any information in this section is for component(s) contained in this product.

Not available.

12. Ecological Information

Not available.

13. Disposal Considerations

Waste Disposal : This material and its container must be disposed of in a safe and environmentally responsible way. Waste must be disposed of in accordance with federal state and local environmental control regulations. Do not allow product to reach sewage system /surface or ground water.

14. Transport Information

Not available.

15. Regulatory Information

Federal and State Regulations

- U.S. Federal Regulations** : All the ingredients are on the TSCA list.
SARA 313 toxic chemical notification and release reporting: No products were found.
- State Regulations** : California prop. 65
This product contains or may contain trace quantities of a substance(s) known to the state of California to cause cancer, birth defects or other reproductive harm.
- Pennsylvania RTK , Massachusetts RTK , New Jersey RTK
No reportable quantities.

[See section 2 for additional composition information](#)

16. Other Information

Other Special Considerations : Not available.

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Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither DSM Desotech nor any of its affiliates assumes any liability whatsoever for the accuracy or completeness of the information contained herein. While this information has been prepared in good faith by technical experts within the Desotech organization, the final determination of suitability of any material is the sole responsibility of the end user, after proper consultation with the end users' engineering, technical, health and safety professionals. All materials may present unknown hazards and should be used with caution considering the specific material, other materials that it may or may not be combined with, and any engineering controls and/or process implementation(s) designed for the use of the material in any specific system process. Although certain hazards are described within, these cannot be guaranteed as the only hazards that exist. This Material Safety Data Sheet (MSDS) has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).