SAFETY DATA SHEET

1. Identification

Product identifier: HumiSeal UV40

Other means of identification

Product code: EX0000-4191

Recommended use: Protective coating for printed circuit board. Industrial use.

Recommended restrictions: No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name: CHASE CORPORATION Zeta Drive Plant
Address: 201 Zeta Drive
Pittsburgh, Pennsylvania 15238
United States

Telephone: 1-866-932-0800

Emergency phone number: 1-800-424-9300
Chemtrec, US
(+1)703-527-3887
Chemtrec, outside of US

E-mail: techsupport@humiseal.com

2. Hazard(s) identification

Physical hazards

Flammable liquids: Category 4

Health hazards

Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 2A
Sensitization, respiratory: Category 1
Sensitization, skin: Category 1
Specific target organ toxicity, single exposure: Category 3 respiratory tract irritation

Environmental hazards

Hazardous to the aquatic environment, acute hazard: Category 1
Hazardous to the aquatic environment, long-term hazard: Category 1

OSHA defined hazards

Not classified.

Label elements

Signal word: Danger

Hazard statement

H227: Combustible liquid.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
Precautionary statement

Prevention

P210 Keep away from flames and hot surfaces. - No smoking.
P261 Avoid breathing mist/vapors.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Response

P302 + P350 If on skin: Wash with plenty of water.
P304 + P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a poison center/doctor if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P342 + P311 If experiencing respiratory symptoms: Call a poison center/doctor.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use appropriate media to extinguish.
P391 Collect spillage.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

Supplemental information

2.67% of the mixture consists of component(s) of unknown acute dermal toxicity. 2.67% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate</td>
<td></td>
<td>5888-33-5</td>
<td>40 - &lt; 50</td>
</tr>
<tr>
<td>Isocyanatoacrylate</td>
<td></td>
<td></td>
<td>40 - &lt; 50</td>
</tr>
<tr>
<td>Hexamethylene diisocyanate, oligomers</td>
<td></td>
<td>28182-81-2</td>
<td>3 - &lt; 5</td>
</tr>
<tr>
<td>2-hydroxy-2-methylpropiophenone</td>
<td></td>
<td>7473-98-5</td>
<td>1 - &lt; 3</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td></td>
<td>123-86-4</td>
<td>1 - &lt; 3</td>
</tr>
<tr>
<td>Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide</td>
<td></td>
<td>162881-26-7</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Tosyl isocyanate</td>
<td></td>
<td>4083-64-1</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>1,7,7-trimethyltricyclo[2.2.1.02,6]heptane</td>
<td></td>
<td>508-32-7</td>
<td>&lt; 0.3</td>
</tr>
<tr>
<td>Camphene</td>
<td></td>
<td>79-92-5</td>
<td>&lt; 0.3</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Water. Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling
Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td>PEL</td>
<td>710 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 ppm</td>
</tr>
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</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
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<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td>STEL</td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td>STEL</td>
<td>950 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>710 mg/m³</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection
Wear appropriate chemical resistant gloves.

Other
Wear appropriate chemical resistant clothing.

Respiratory protection
Chemical respirator with organic vapor cartridge and full facepiece.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state
Liquid.

Form
Not available.

Color
Not available.

Odor
Not available.

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
Not available.

Initial boiling point and boiling range
527 °F (275 °C) estimated

Flash point
167.0 °F (75.0 °C) Closed Cup

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
0.003 kPa estimated

Vapor density
Not available.
Relative density
Solubility
Solubility (water)
Partition coefficient
(n-octanol/water)
Auto-ignition temperature
Decomposition temperature
Viscosity
Other information
Density
Explosive properties
Kinematic viscosity
Kinematic viscosity temperature
Oxidizing properties
VOC

10. Stability and reactivity
Reactivity
Chemical stability
Possibility of hazardous reactions
Conditions to avoid
Incompatible materials
Hazardous decomposition products

11. Toxicological information
Information on likely routes of exposure
Inhalation
Skin contact
Eye contact
Ingestion
Symptoms related to the physical, chemical and toxicological characteristics
Information on toxicological effects
Acute toxicity

Components | Species | Test Results
--- | --- | ---
2-hydroxy-2-methylpropiophenone (CAS 7473-98-5) |  | 
**Acute**
Dermal
LD50 | Rat | 6929 mg/kg
Oral
LD50 | Rat | 1694 mg/kg
Camphene (CAS 79-92-5) |  | 
**Acute**
Dermal
LD50 | Rabbit | > 2000 mg/kg
Inhalation
LC50 | - | > 25 mg/l, 4 Hours
Oral
LD50 | Rat | > 2000 mg/kg
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (CAS 5888-33-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 3000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>4350 mg/kg</td>
</tr>
<tr>
<td>Hexamethylene diisocyanate, oligomers (CAS 28182-81-2)</td>
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<td></td>
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<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg, 24 Hours</td>
</tr>
<tr>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
<td></td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mist</strong></td>
<td>Rat</td>
<td>0.39 mg/l, 4 hours</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Isocyanatoacrylate</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mist</strong></td>
<td>Rat</td>
<td>&gt; 5 mg/l, 4 hours</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>14110 mg/kg</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapor</strong></td>
<td>Rat</td>
<td>23.4 mg/l, 4 hours</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 6400 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10760 mg/kg</td>
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<tr>
<td>Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide (CAS 162881-26-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg, 24 Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Tosyl isocyanate (CAS 4083-64-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>2330 mg/kg</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>Causes skin irritation.</td>
<td></td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td>Causes serious eye irritation.</td>
<td></td>
</tr>
</tbody>
</table>
Respiratory or skin sensitization

Respiratory sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity:

IARC Monographs. Overall Evaluation of Carcinogenicity: Not listed.


US. National Toxicology Program (NTP) Report on Carcinogens: Not listed.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: May cause respiratory irritation.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not an aspiration hazard.

Chronic effects: Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity: Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>HumiSeal UV40</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11432.1602, 96 hours estimated</td>
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<tr>
<td>Acute</td>
<td></td>
<td></td>
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<tr>
<td>Algae</td>
<td>EC50</td>
<td>Algae</td>
</tr>
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<td></td>
<td></td>
<td>69.6429, 72 hours estimated</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia</td>
</tr>
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<td></td>
<td></td>
<td>46.4677, 48 hours estimated</td>
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<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.832, 96 hours estimated</td>
</tr>
<tr>
<td>Components</td>
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<tr>
<td>2-hydroxy-2-methylpropiophenone (CAS 7473-98-5)</td>
<td>Aquatic</td>
<td>Test Results</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EC50</td>
<td>Algae</td>
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<tr>
<td></td>
<td></td>
<td>1.95, 72 hours</td>
</tr>
<tr>
<td>Camphene (CAS 79-92-5)</td>
<td>Aquatic</td>
<td>Test Results</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
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<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.72, 48 hours</td>
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<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.72, 96 hours</td>
</tr>
<tr>
<td>Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (CAS 5888-33-5)</td>
<td>Aquatic</td>
<td>Test Results</td>
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</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.704, 96 hours</td>
</tr>
<tr>
<td>Isocyanatoacrylate</td>
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<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>58, 48 hours</td>
</tr>
<tr>
<td>n-butyl acetate (CAS 123-86-4)</td>
<td>Aquatic</td>
<td>Test Results</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
</tr>
<tr>
<td>Components</td>
<td>Species</td>
<td>Test Results</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------</td>
<td>------------------------</td>
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<tr>
<td>Tosyl isocyanate (CAS 4083-64-1)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Aquatic</strong></td>
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<td></td>
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<tr>
<td><strong>Acute</strong></td>
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<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

| Partition coefficient n-octanol / water (log Kow) |           |                        |
|                                                 |           |                        |
| Camphene (CAS 79-92-5)                          | 4.22      |                        |
| n-butyl acetate (CAS 123-86-4)                  | 1.78      |                        |

**Mobility in soil**
No data available.

**Other adverse effects**
The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

**Disposal instructions**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**
Dispose in accordance with all applicable regulations.

**Hazardous waste code**
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

**DOT**
Not regulated as dangerous goods.

**IATA**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN3082</th>
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</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>Environmentally hazardous substance, liquid, n.o.s. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)</td>
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</tbody>
</table>

**Transport hazard class(es)**

<table>
<thead>
<tr>
<th>Class</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes</td>
</tr>
<tr>
<td>ERG Code</td>
<td>9L</td>
</tr>
</tbody>
</table>

**Special precautions for user**
Read safety instructions, SDS and emergency procedures before handling.

**Other information**

| Passenger and cargo aircraft | Allowed with restrictions. |
| Cargo aircraft only | Allowed with restrictions. |

As per IATA S.P. A197: These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net weight per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**IMDG**

<table>
<thead>
<tr>
<th>UN number</th>
<th>UN3082</th>
</tr>
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<tbody>
<tr>
<td>UN proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), MARINE POLLUTANT</td>
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</table>

**Transport hazard class(es)**

<table>
<thead>
<tr>
<th>Class</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary risk</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>Yes</td>
</tr>
</tbody>
</table>
EmS  
Special precautions for user  
Read safety instructions, SDS and emergency procedures before handling.

As per section 2.10.2.7 of IMDG Code: Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 Kg or less for solids are not subject to any other provisions of the IMDG Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of the IMDG Code relevant to any additional hazards continue to apply.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IATA; IMDG

General information  
IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations  
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)  
One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)  
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)  
n-butyl acetate (CAS 123-86-4)  
Listed.

SARA 304 Emergency release notification  
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)  
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)  
SARA 302 Extremely hazardous substance  
Not listed.

SARA 311/312 Hazardous chemical  
Yes

Classified hazard categories  
Flammable (gases, aerosols, liquids, or solids)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)  
Not regulated.

Material name: HumiSeal UV40  
EX0000-4191  Version #: 09  Revision date: 07-20-2023  Issue date: 08-09-2021
Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

n-butyl acetate (CAS 123-86-4) Low priority

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Hexamethylene diisocyanate, oligomers (CAS 28182-81-2)
Tosyl isocyanate (CAS 4083-64-1)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region | Inventory name | On inventory (yes/no)*
--- | --- | ---
Australia | Australian Inventory of Industrial Chemicals (AICIS) | No
Canada | Domestic Substances List (DSL) | No
Canada | Non-Domestic Substances List (NDSL) | Yes
China | Inventory of Existing Chemical Substances in China (IECSC) | Yes
Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No
Europe | European List of Notified Chemical Substances (ELINCS) | No
Japan | Inventory of Existing and New Chemical Substances (ENCS) | No
Korea | Existing Chemicals List (ECL) | No
New Zealand | New Zealand Inventory | No
Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No
Taiwan | Taiwan Chemical Substance Inventory (TCSI) | Yes
United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 08-09-2021
Revision date 07-20-2023
Version # 09

HMIS® ratings
Health: 2*
Flammability: 2
Physical hazard: 0

NFPA ratings
Health: 2
Flammability: 2
Instability: 0

List of abbreviations
AICIS: Australian Inventory of Industrial Chemicals.

Disclaimer
The information offered in this data sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication, however, no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. This material is intended for industrial use only. No warranty, expressed or implied is made.

Revision information