SAFETY DATA SHEET

1. Identification

Product identifier: HumiSeal 1B31 Aerosol

Other means of identification:
Product code: HumiSeal Europe 1B31 Aerosol

Recommended use: Protective Coating for Printed Circuit Board

Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer:
Company name: HUMISEAL EUROPE LTD.
Address: HumiSeal
505 Eskdale Road
Winnersh
United Kingdom

Telephone: General Assistance 44 (0) 118 944 2333
Website: www.humiseal.com
E-mail: europetechsupport@chasecorp.com

Emergency phone number:
Chemtrec USA 1-800-424-9300
Chemtrec outside USA +1 703-741-5970

2. Hazard(s) identification

Physical hazards: Flammable aerosols Category 1

Health hazards:
- Skin corrosion/irritation Category 2
- Serious eye damage/eye irritation Category 2A
- Germ cell mutagenicity Category 1B
- Carcinogenicity Category 1A
- Reproductive toxicity Category 2
- Specific target organ toxicity, single exposure Category 3 narcotic effects
- Specific target organ toxicity, repeated exposure Category 2
- Aspiration hazard Category 1

Environmental hazards:
- Hazardous to the aquatic environment, acute hazard Category 2
- Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards: Not classified.

Label elements

Signal word: Danger
Hazard statement
Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

Precautionary statement
Prevention
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response
If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage
Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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

Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
30.98% of the mixture consists of component(s) of unknown acute oral toxicity. 30.98% of the mixture consists of component(s) of unknown acute dermal toxicity. 59.96% of the mixture consists of component(s) of unknown acute inhalation toxicity. 50.98% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 50.98% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

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>Toluene</td>
<td></td>
<td>108-88-3</td>
<td>40 - &lt; 50</td>
</tr>
<tr>
<td>ACETONE</td>
<td></td>
<td>67-64-1</td>
<td>10 - &lt; 20</td>
</tr>
<tr>
<td>Butane</td>
<td></td>
<td>106-97-8</td>
<td>10 - &lt; 20</td>
</tr>
<tr>
<td>PROPANE</td>
<td></td>
<td>74-98-6</td>
<td>10 - &lt; 20</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td></td>
<td>78-93-3</td>
<td>5 - &lt; 10</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>5 - &lt; 10</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. 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
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn’t get into the lungs.

Most important symptoms/effects, acute and delayed
Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

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 exposed or concerned: Get medical advice/attention. 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. Show this safety data sheet to the doctor in attendance.

Material name: HumiSeal 1B31 Aerosol
HumiSeal Europe 1B31 Aerosol   Version #: 03   Revision date: 12-13-2017   Issue date: 06-21-2015

SDS US
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5. Fire-fighting measures

Suitable extinguishing media
- Alcohol resistant foam.
- Powder.
- Carbon dioxide (CO2).

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

Specific hazards arising from the chemical
- Contents under pressure. Pressurized container may explode when exposed to heat or flame.
- During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
- Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions
- Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods
- Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards
- Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
- Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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
- Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Environmental precautions
- Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
- Level 3 Aerosol.
- Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. 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>ACETONE (CAS 67-64-1)</td>
<td>PEL</td>
<td>2400 mg/m3</td>
</tr>
<tr>
<td>Component</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>PEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>590 mg/m3</td>
</tr>
<tr>
<td>PROPE (CAS 74-98-6)</td>
<td>PEL</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1800 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>Ceiling</td>
<td>300 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 ppm</td>
</tr>
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<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td>STEL</td>
<td>500 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250 ppm</td>
</tr>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>STEL</td>
<td>300 ppm</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>TWA</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td>TWA</td>
<td>590 mg/m3</td>
</tr>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>TWA</td>
<td>1900 mg/m3</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>STEL</td>
<td>885 mg/m3</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>TWA</td>
<td>300 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 ppm</td>
</tr>
<tr>
<td>PROPE (CAS 74-98-6)</td>
<td>TWA</td>
<td>1800 mg/m3</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>STEL</td>
<td>560 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>375 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ppm</td>
</tr>
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</table>

### Biological limit values

<table>
<thead>
<tr>
<th>Component</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td>Acetone</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>MEK</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>o-Cresol, with hydrolysis</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Toluene</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Toluene</td>
<td>Blood</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

### Exposure guidelines

**US - California OELs: Skin designation**
- Toluene (CAS 108-88-3) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**
- Toluene (CAS 108-88-3) Skin designation applies.
Good general ventilation (typically 10 air changes per hour) 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. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

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. Use of an impervious apron is recommended.

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

General hygiene considerations
Observe any medical surveillance requirements. 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.

9. Physical and chemical properties

Appearance
Physical state
Liquid.
Form
Aerosol.
Color
Clear
Odor
Aromatic
Odor threshold
Not available.
pH
Does not apply.
Melting point/freezing point
-305.68 °F (-187.6 °C) estimated
Initial boiling point and boiling range
-43.78 °F (-42.1 °C) estimated
Flash point
< 33.8 °F (< 1.0 °C) estimated
Evaporation rate
3.6 BuAc
Flammability (solid, gas)
Not applicable.
Upper/lower flammability or explosive limits
Flammability limit - lower (%)
1.3 % estimated
Flammability limit - upper (%)
12.8 % estimated
Explosive limit - lower (%)
Not available.
Explosive limit - upper (%)
Not available.
Vapor pressure
1704.05 hPa estimated
Vapor density
Not available.
Relative density
Not available.
Solubility(ies)
Solubility (water)
Negligible
Partition coefficient (n-octanol/water)
Not available.
Auto-ignition temperature
550 °F (287.78 °C) estimated
Decomposition temperature
Not available.
Viscosity
Not available.
Other information
Density
0.74 g/cm3
Explosive properties
Not explosive.
Flammability class
Flammable IA estimated
Heat of combustion (NFPA 30B)  30.51 kJ/g estimated
Miscible (water)  Negligible
Oxidizing properties  Not oxidizing.
Percent volatile  68.98 % estimated
Specific gravity  0.74
VOC  68.98 % estimated

10. Stability and reactivity
Reactivity  The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability  Material is stable under normal conditions.
Possibility of hazardous reactions  No dangerous reaction known under conditions of normal use.
Conditions to avoid  Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Hazardous decomposition products  No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
Inhalation  May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact  Causes skin irritation.
Eye contact  Causes serious eye irritation.
Ingestion  Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics  Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects
Acute toxicity  May be fatal if swallowed and enters airways.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>2300 - 3500 mg/kg</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>2.6 g/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation  Causes skin irritation.
Serious eye damage/eye irritation  Causes serious eye irritation.
Respiratory or skin sensitization
Respiratory sensitization  Not a respiratory sensitizer.
Skin sensitization  This product is not expected to cause skin sensitization.
Germ cell mutagenicity  May cause genetic defects.
Carcinogenicity  May cause cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity
Toluene (CAS 108-88-3)  3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

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

Reproductive toxicity
Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure
May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard
May be fatal if swallowed and enters airways.

Chronic effects
May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
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 1B31 Aerosol</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20.8634 mg/l, 48 hours estimated</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>179.0876 mg/l, 96 hours estimated</td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10294 - 17704 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 400 mg/l, 96 hours</td>
</tr>
<tr>
<td>M ETHYL ETHYL KETONE (CAS 78-93-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4025 - 6440 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Sheepshead minnow (Cyprinodon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>variegatus)</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.46 - 9.83 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Coho salmon, silver salmon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Oncorhynchus kisutch)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.11 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

<table>
<thead>
<tr>
<th>Component</th>
<th>log Kow</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE</td>
<td>-0.24</td>
</tr>
<tr>
<td>Butane</td>
<td>2.89</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE</td>
<td>0.29</td>
</tr>
<tr>
<td>PROPANE</td>
<td>2.36</td>
</tr>
<tr>
<td>Toluene</td>
<td>2.73</td>
</tr>
</tbody>
</table>

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. Contents under pressure. Do not puncture, incinerate or crush. 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. Do not re-use empty containers.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
- UN number: UN1950
- UN proper shipping name: Aerosols, flammable
- Transport hazard class(es):
  - Class: 2.1
  - Subsidiary risk: -
  - Label(s): 2
- Packing group: Not available.
- Environmental hazards: No.
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

IMDG
- UN number: UN1950
- UN proper shipping name: AEROSOLS
- Transport hazard class(es):
  - Class: 2.1
  - Subsidiary risk: -
- Packing group: Not available.
- Environmental hazards:
  - Marine pollutant: No.
  - EmS: F-D, S-U
- Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
  - Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established.

15. Regulatory information

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

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

CERCLA Hazardous Substance List (40 CFR 302.4)
- ACETONE (CAS 67-64-1): Listed.
- METHYL ETHYL KETONE (CAS 78-93-3): Listed.
- PROPANE (CAS 74-98-6): Listed.
Material name: HumiSeal 1B31 Aerosol
HumiSeal Europe 1B31 Aerosol    Version #: 03    Revision date: 12-13-2017    Issue date: 06-21-2015

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>40 - &lt; 50</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Butane (CAS 106-97-8)
PROPANE (CAS 74-98-6)

Safe Drinking Water Act (SDWA)
Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

<table>
<thead>
<tr>
<th>Chemical</th>
<th>CAS number</th>
<th>Code Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td>6532</td>
<td></td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>6714</td>
<td></td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>6594</td>
<td></td>
</tr>
</tbody>
</table>

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

<table>
<thead>
<tr>
<th>Chemical</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td>35 %WV</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>35 %WV</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>35 %WV</td>
</tr>
</tbody>
</table>

DEA Exempt Chemical Mixtures Code Number

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Code Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE (CAS 67-64-1)</td>
<td>6532</td>
</tr>
<tr>
<td>METHYL ETHYL KETONE (CAS 78-93-3)</td>
<td>6714</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td>594</td>
</tr>
</tbody>
</table>

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
ACETONE (CAS 67-64-1) Low priority
METHYL ETHYL KETONE (CAS 78-93-3) Low priority

US state regulations
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Developmental toxin
Toluene (CAS 108-88-3) Listed: January 1, 1991

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
ACETONE (CAS 67-64-1)
Butane (CAS 106-97-8)
METHYL ETHYL KETONE (CAS 78-93-3)
Toluene (CAS 108-88-3)

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*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 | 06-21-2015 |
| Revision date | 12-13-2017 |
| Version # | 03 |

**HMIS® ratings**
- Health: 3*
- Flammability: 4
- Physical hazard: 0

**NFPA ratings**
- Health: 2
- Flammability: 4
- Instability: 0

**Disclaimer**
The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create any warranty, expressed or implied. It is the responsibility of the user to determine the applicability of this information and the suitability of the material or product for any particular purpose.

**Revision information**
This document has undergone significant changes and should be reviewed in its entirety.