

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

|  |                      |
|--|----------------------|
| Trade name or designation of the mixture | HumiSeal UV92        |
| Registration number                      | -                    |
| Synonyms                                 | None.                |
| Product code                             | HumiSeal Europe UV92 |
| Issue date                               | 11-December-2017     |
| Version number                           | 03                   |
| Revision date                            | 30-July-2018         |
| Supersedes date                          | 05-January-2018      |

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

|                      |  |
|----------------------|--|
| Identified uses      | Masking Material for Printed Circuit Board |
| Uses advised against | None known.                                |

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

|                |  |                     |
|----------------|--|---------------------|
| Company name   | HUMISEAL EUROPE LTD.   |                     |
| Address        | 505 Eskdale Road<br>Winnersh<br>Wokingham Berkshire RG41 5TU<br>UK |                     |
| Division       | A CHASE CORPORATION COMPANY  |                     |
| Telephone      | General Assistance   | 44 (0) 118 944 2333 |
| e-mail         | europetechsupport@chasecorp.com                                    |                     |
| Contact person | Not available.   |                     |

|                                 |              |                 |
|---------------------------------|--------------|-----------------|
| 1.4. Emergency telephone number | Chemtrec USA | 1-800-424-9300  |
|                                 | OutSide USA  | +1 703-741-5970 |

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

|                       |            |   |
|-----------------------|------------|---|
| <b>Health hazards</b> |            |   |
| Skin sensitisation    | Category 1 | H317 - May cause an allergic skin reaction. |

**Hazard summary** May cause an allergic skin reaction.

#### 2.2. Label elements

##### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** 2-hydroxyethyl acrylate

**Hazard pictograms**



**Signal word** Warning  
**Hazard statements**  
H317 May cause an allergic skin reaction.

#### Precautionary statements

##### Prevention

P261 Avoid breathing mist/vapor.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.

##### Response

P302 + P352 IF ON SKIN: Wash with plenty of water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

##### Storage

Store away from incompatible materials.

##### Disposal

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

#### Supplemental label information

4.67 % of the mixture consists of component(s) of unknown acute oral toxicity. 4.67 % of the mixture consists of component(s) of unknown acute dermal toxicity. 4.67 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 4.67 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

#### 2.3. Other hazards

Not a PBT or vPvB substance or mixture.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### General information

| Chemical name                                       | %   | CAS-No. / EC No.        | REACH Registration No. | Index No.    | Notes |
|---|---|-------------------------|------------------------|--------------|-------|
| 2-hydroxyethyl acrylate                             | < 1   | 818-61-1<br>212-454-9   | 01-2119459345-34-xxxx  | 607-072-00-8 |       |
| <b>Classification:</b>                              | Acute Tox. 3;H311, Skin Corr. 1B;H314, Skin Sens. 1;H317, Eye Dam. 1;H318, Aquatic Acute 1;H400, Aquatic Chronic 2;H411 |                         |                        |              | D     |
| Diphenyl(2,4,6-trimethylbenzoyl)phos<br>phine Oxide | < 1   | 75980-60-8<br>278-355-8 | 01-2119972295-29-xxxx  | 015-203-00-X |       |
| <b>Classification:</b>                              | Skin Sens. 1B;H317, Repr. 2;H361, Aquatic Chronic 2;H411  |                         |                        |              |       |
| Other components below reportable levels            | 90 - 100  |                         |                        |              |       |

##### List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

##### Composition comments

The full text for all H-statements is displayed in section 16.

### SECTION 4: First aid measures

##### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 4.1. Description of first aid measures

##### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

##### 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.

##### Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

##### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

#### 4.2. Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction. Dermatitis. Rash.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

### SECTION 5: Firefighting measures

##### General fire hazards

No unusual fire or explosion hazards noted.

|   |   |
|---|---|
| <b>5.1. Extinguishing media</b>                                   |   |
| <b>Suitable extinguishing media</b>                               | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).                      |
| <b>Unsuitable extinguishing media</b>                             | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>5.2. Special hazards arising from the substance or mixture</b> | During fire, gases hazardous to health may be formed.   |
| <b>5.3. Advice for firefighters</b>                               |   |
| <b>Special protective equipment for firefighters</b>              | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Special fire fighting procedures</b>                           | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>   | Use standard firefighting procedures and consider the hazards of other involved materials.    |

## SECTION 6: Accidental release measures

|   |  |
|---|--|
| <b>6.1. Personal precautions, protective equipment and emergency procedures</b> |  |
| <b>For non-emergency personnel</b>  | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapor. 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.   |
| <b>For emergency responders</b>   | Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.  |
| <b>6.2. Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.   |
| <b>6.3. Methods and material for containment and cleaning up</b>                | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| <b>6.4. Reference to other sections</b>   | For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.  |

## SECTION 7: Handling and storage

|  |   |
|--|---|
| <b>7.1. Precautions for safe handling</b>                                | Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. |
| <b>7.2. Conditions for safe storage, including any incompatibilities</b> | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).  |
| <b>7.3. Specific end use(s)</b>  | Not available.  |

## SECTION 8: Exposure controls/personal protection

|  |   |
|--|---|
| <b>8.1. Control parameters</b>   |   |
| <b>Occupational exposure limits</b>  | No exposure limits noted for ingredient(s).   |
| <b>Biological limit values</b>   | No biological exposure limits noted for the ingredient(s).  |
| <b>Recommended monitoring procedures</b>                                     | Follow standard monitoring procedures.  |
| <b>Derived no effect levels (DNELs)</b>                                      | Not available.  |
| <b>Predicted no effect concentrations (PNECs)</b>                            | Not available.  |
| <b>8.2. Exposure controls</b>  |   |
| <b>Appropriate engineering controls</b>                                      | 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. |
| <b>Individual protection measures, such as personal protective equipment</b> |   |
| <b>General information</b>   | Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.   |
| <b>Eye/face protection</b>   | Face shield is recommended. Wear safety glasses with side shields (or goggles).   |

|  |  |
|--|--|
| <b>Skin protection</b>                 |  |
| - Hand protection                      | Wear appropriate chemical resistant gloves.  |
| - Other                                | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.   |
| <b>Respiratory protection</b>          | In case of insufficient ventilation, wear suitable respiratory equipment.  |
| <b>Thermal hazards</b>                 | Wear appropriate thermal protective clothing, when necessary.  |
| <b>Hygiene measures</b>                | 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. |
| <b>Environmental exposure controls</b> | Environmental manager must be informed of all major releases.  |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

|  |                 |
|--|-----------------|
| <b>Physical state</b>                          | Liquid.         |
| <b>Form</b>                                    | Liquid.         |
| <b>Colour</b>                                  | Not available.  |
| <b>Odour</b>                                   | Not available.  |
| <b>Odour threshold</b>                         | Not available.  |
| <b>pH</b>                                      | Not available.  |
| <b>Melting point/freezing point</b>            | Not available.  |
| <b>Initial boiling point and boiling range</b> | Not available.  |
| <b>Flash point</b>                             | Not available.  |
| <b>Evaporation rate</b>                        | Not available.  |
| <b>Flammability (solid, gas)</b>               | Not applicable. |

#### Upper/lower flammability or explosive limits

|                                       |                |
|---------------------------------------|----------------|
| <b>Flammability limit - lower (%)</b> | Not available. |
| <b>Flammability limit - upper (%)</b> | Not available. |

|                         |                |
|-------------------------|----------------|
| <b>Vapour pressure</b>  | Not available. |
| <b>Vapour density</b>   | Not available. |
| <b>Relative density</b> | Not available. |

#### Solubility(ies)

|  |                |
|--|----------------|
| <b>Solubility (water)</b>                      | Not available. |
| <b>Partition coefficient (n-octanol/water)</b> | Not available. |

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

### 9.2. Other information

|                         |                                  |
|-------------------------|----------------------------------|
| <b>Density</b>          | 1.04 g/cm <sup>3</sup> estimated |
| <b>Specific gravity</b> | 1.04 estimated                   |

## SECTION 10: Stability and reactivity

|   |   |
|---|---|
| <b>10.1. Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.                           |
| <b>10.2. Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>10.3. Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.   |
| <b>10.4. Conditions to avoid</b>                | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials. |
| <b>10.5. Incompatible materials</b>             | Strong oxidising agents.  |

**10.6. Hazardous decomposition products**

No hazardous decomposition products are known.

**SECTION 11: Toxicological information**

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

**Information on likely routes of exposure**

- Inhalation** Prolonged inhalation may be harmful.
- Skin contact** May cause an allergic skin reaction.
- Eye contact** Direct contact with eyes may cause temporary irritation.
- Ingestion** May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

**Symptoms** May cause an allergic skin reaction. Dermatitis. Rash.

**11.1. Information on toxicological effects**

- Acute toxicity** Not known.
- Skin corrosion/irritation** Due to partial or complete lack of data the classification is not possible.
- Serious eye damage/eye irritation** Due to partial or complete lack of data the classification is not possible.
- Respiratory sensitisation** Due to partial or complete lack of data the classification is not possible.
- Skin sensitisation** May cause an allergic skin reaction.
- Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.
- Carcinogenicity** Due to partial or complete lack of data the classification is not possible.
- Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.
- Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.
- Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.
- Aspiration hazard** Due to partial or complete lack of data the classification is not possible.
- Mixture versus substance information** No information available.
- Other information** Not available.

**SECTION 12: Ecological information**

**12.1. Toxicity** Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

| Product                                | Species | Test Results  |
|--|---------|---|
| HumiSeal UV92                          |         |   |
| <b>Aquatic</b>                         |         |   |
| Fish                                   | LC50    | 641.8829 mg/l, 96 hours estimated                       |
| Components                             | Species | Test Results  |
| 2-hydroxyethyl acrylate (CAS 818-61-1) |         |   |
| <b>Aquatic</b>                         |         |   |
| Fish                                   | LC50    | Fathead minnow (Pimephales promelas) 4.8 mg/l, 96 hours |

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

**12.3. Bioaccumulative potential**

**Partition coefficient n-octanol/water (log Kow)**  
2-hydroxyethyl acrylate -0.21

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture. Not available.

**12.6. Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

|                                     |  |
|-------------------------------------|--|
| <b>Residual waste</b>               | 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). |
| <b>Contaminated packaging</b>       | 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.       |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Disposal methods/information</b> | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.                         |
| <b>Special precautions</b>          | Dispose in accordance with all applicable regulations.   |

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

2-hydroxyethyl acrylate (CAS 818-61-1)

|   |   |
|---|---|
| <b>Other regulations</b>                | The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.   |
| <b>National regulations</b>             | Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.<br><br>Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC. |
| <b>15.2. Chemical safety assessment</b> | No Chemical Safety Assessment has been carried out.   |

## SECTION 16: Other information

|   |   |
|---|---|
| <b>List of abbreviations</b>  | Not available.  |
| <b>References</b>   | Not available.  |
| <b>Information on evaluation method leading to the classification of mixture</b>    | The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.   |
| <b>Full text of any H-statements not written out in full under Sections 2 to 15</b> | H311 Toxic in contact with skin.<br>H314 Causes severe skin burns and eye damage.<br>H317 May cause an allergic skin reaction.<br>H318 Causes serious eye damage.<br>H361 Suspected of damaging fertility or the unborn child.<br>H400 Very toxic to aquatic life.<br>H411 Toxic to aquatic life with long lasting effects.   |
| <b>Revision information</b>   | This document has undergone significant changes and should be reviewed in its entirety.   |
| <b>Training information</b>   | Follow training instructions when handling this material.   |
| <b>Disclaimer</b>   | 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 |