













SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation

Humiseal UV500

of the mixture

Registration number

Synonyms None.

HumiSeal Europe UV500 **Product code**

10-June-2015 Issue date

Version number

01-February-2018 **Revision date** 13-November-2017 Supersedes date

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

Protective Coating for Printed Circuit Board **Identified uses**

03

None known. Uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier

HUMISEAL EUROPE LTD. Company name

505 Eskdale Road **Address**

Winnersh

Wokingham Berkshire RG41 5TU

Division A CHASE CORPORATION COMPANY

Telephone General Assistance 44 (0) 118 944 2333

europetechsupport@chasecorp.com e-mail

OutSide USA

Not available. Contact person

1.4. Emergency telephone

number

Chemtrec USA

1-800-424-9300

+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

Health hazards

Skin corrosion/irritation Category 2 H315 - Causes skin irritation. Serious eye damage/eye irritation Category 2 H319 - Causes serious eye

irritation.

irritation.

Specific target organ toxicity - single Category 3 respiratory tract irritation H335 - May cause respiratory

exposure

Environmental hazards

Hazardous to the aquatic environment, Category 2 H411 - Toxic to aquatic life with long-term aquatic hazard

long lasting effects.

Hazard summary Causes serious eye irritation. Causes skin irritation. May cause irritation to the respiratory system. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into

watercourses.

2.2. Label elements

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

Contains: ISO-OCTYL ACRYLATE

Hazard pictograms



Signal word Warning

Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P261 Avoid breathing mist or vapour.
P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.
P280 Wear eye protection/face protection.

P280 Wear protective gloves.

Response

P302 + P352 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 PÓISON CENTRE/doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

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

Supplemental label information

93.28 % of the mixture consists of component(s) of unknown acute oral toxicity. 93.28 % of the mixture consists of component(s) of unknown acute dermal toxicity. 93.28 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 68.58 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 68.58 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. EUH208 - Contains Tosyl isocyanate, Trimethylolpropane triacrylate. May produce an allergic reaction.

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			
ISO-OCTYL ACRYLATE	20	- < 30	29590-42-9 249-707-8	01-2119486988-09-XXXX	607-244-00-2				
Classification:	Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335, Aquatic Acute 1;H400, Aquatic Chronic 1;H410								
Diphenyl(2,4,6-trimethylb phine Oxide	enzoyl)phos	< 1	75980-60-8 278-355-8	01-2119972295-29-xxxx	015-203-00-X				
Classification:	Skin Sens. 1B;H317, Repr. 2;H361, Aquatic Chronic 2;H411								
Tosyl isocyanate		< 1	4083-64-1 223-810-8	01-211990050-47-XXXX	615-012-00-7				
Classification:	Skin Irrit. 2;H31	5, Eye Irı	it. 2;H319, Resp. S	Sens. 1;H334, STOT SE 3;H3	35				

Material name: Humiseal UV500

Chemical name		%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Trimethylolpropane triacrylate		< 1	15625-89-5 239-701-3	01-2119489896-11-XXXX	607-111-00-9	
Classification:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319					D

Other components below reportable levels 70 - < 80

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 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.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

CENTRE 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 Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and

delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

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 hazardsNo unusual fire or explosion hazards noted.

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

Move containers from fire area if you can do so without risk.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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 or vapour. 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.

For emergency responders Keep unner

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the

SDS.

6.2. 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

drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

This product is miscible in water. 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. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing mist or vapour. 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.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit values

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

Recommended monitoring

procedures

Follow standard monitoring procedures.

Derived no effect levels

(DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available

8.2. Exposure controls

Appropriate engineering

controls

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

General informationUse personal protective equipment as required. Personal protection equipment should be chosen

according to the CEN standards and in discussion with the supplier of the personal protective

equipment.

Eye/face protection

Chemical respirator with organic vapour cartridge and full facepiece.

Skin protection
- Hand protection

Wear appropriate chemical resistant gloves.

Wear appropriate chemical resistant clothing.

- Other
Respiratory protection

Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

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.

Environmental exposure

controls

Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical stateLiquid.FormLiquid.ColourLight yellow.

Odour Mild.

Material name: Humiseal UV500

HumiSeal Europe UV500 Version #: 03 Revision date: 01-February-2018 Issue date: 10-June-2015

Odour threshold Not available. Does not apply. Not available. Melting point/freezing point Initial boiling point and boiling Not available.

range

Not available. Flash point Not available. **Evaporation rate** Not applicable. Flammability (solid, gas)

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Flammability limit - upper

Not available.

Not available.

0.13 hPa estimated Vapour pressure Vapour density Not available. Not available. Relative density

Solubility(ies)

Solubility (water) Negligible Not available. Partition coefficient

(n-octanol/water)

Not available. **Auto-ignition temperature** Not available. **Decomposition temperature** 275 - 375 cP Viscosity **Explosive properties** Not explosive. Oxidising properties Not oxidising.

9.2. Other information

Brookfield viscosity 275 - 375 cP 1.00 - 1.10 g/cm3 Density

Miscible (water) Negligible

0.02 % estimated Percent volatile

Specific gravity 1 - 1 1

VOC 0.26 % estimated

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Material is stable under normal conditions. 10.2. Chemical stability

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Contact with incompatible materials. 10.4. Conditions to avoid

10.5. Incompatible materials Strong oxidising agents.

No hazardous decomposition products are known. 10.6. Hazardous

decomposition products

SECTION 11: Toxicological information

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

Information on likely routes of exposure

May cause irritation to the respiratory system. May cause allergy or asthma symptoms or Inhalation

breathing difficulties if inhaled. Prolonged inhalation may be harmful.

Causes skin irritation. May cause an allergic skin reaction. Skin contact

Eye contact Causes serious eye irritation.

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of

occupational exposure.

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Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred **Symptoms**

vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Not known. **Acute toxicity**

Material name: Humiseal UV500

Causes skin irritation. Skin corrosion/irritation

Serious eye damage/eye

irritation

Causes serious eve 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 Due to partial or complete lack of data the classification is not possible. Germ cell mutagenicity

Risk of cancer cannot be excluded with prolonged exposure. Carcinogenicity

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

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 May cause allergic respiratory and skin reactions.

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects. Based on available data, the classification criteria are

not met for hazardous to the aquatic environment, acute hazard.

12.2. Persistence and

degradability

12.3. Bioaccumulative potential

Partition coefficient Not available.

n-octanol/water (log Kow)

Bioconcentration factor (BCF) Not available No data available 12.4. Mobility in soil

12.5. Results of PBT

and vPvB assessment Not a PBT or vPvB substance or mixture.

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of in accordance with local regulations. Empty containers or liners may retain some Residual waste

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow Disposal methods/information

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.

Dispose in accordance with all applicable regulations. **Special precautions**

SECTION 14: Transport information

ADR

UN3082 14.1. UN number

14.2. UN proper shipping Environmentally hazardous substance, liquid, n.o.s. (ISO-OCTYL ACRYLATE)

name

14.3. Transport hazard class(es)

9 Class Subsidiary risk 9 Label(s) Hazard No. (ADR) 90 **Tunnel restriction code** Ε 14.4. Packing group Ш 14.5. Environmental hazards Yes

14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling. for user RID UN3082 14.1. UN number Environmentally hazardous substance, liquid, n.o.s. (ISO-OCTYL ACRYLATE) 14.2. UN proper shipping name 14.3. Transport hazard class(es) Class 9 Subsidiary risk a Label(s) Ш 14.4. Packing group 14.5. Environmental hazards Yes 14.6. Special precautions Read safety instructions, SDS and emergency procedures before handling. for user **ADN** UN3082 14.1. UN number Environmentally Hazardous Liquid, N.o.s. (ISO-OCTYL ACRYLATE) 14.2. UN proper shipping name 14.3. Transport hazard class(es) Class 9 Subsidiary risk 9 Label(s) Ш 14.4. Packing group 14.5. Environmental hazards Yes Read safety instructions, SDS and emergency procedures before handling. 14.6. Special precautions for user **IATA** 14.1. UN number UN3082 14.2. UN proper shipping Environmentally hazardous substance, liquid, n.o.s. (ISO-OCTYL ACRYLATE) name 14.3. Transport hazard class(es) 9 Class Subsidiary risk 14.4. Packing group Ш 14.5. Environmental hazards Yes **ERG Code** 91 Read safety instructions, SDS and emergency procedures before handling. 14.6. Special precautions for user Other information Allowed with restrictions. Passenger and cargo aircraft Allowed with restrictions. Cargo aircraft only **IMDG** UN3082 14.1. UN number 14.2. UN proper shipping ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISO-OCTYL ACRYLATE), MARINE POLLUTANT 14.3. Transport hazard class(es) 9 Class Subsidiary risk Ш 14.4. Packing group

14.5. Environmental hazards Marine pollutant Yes **EmS** F-A. S-F

Read safety instructions, SDS and emergency procedures before handling. 14.6. Special precautions

for user

RAHN GENOCURE LTM BENZOPHENONE LPB

Not established. 14.7. Transport in bulk

according to Annex II of Marpol

and the IBC Code

ADN; ADR; IATA; IMDG; RID



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

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.

Material name: Humiseal UV500

Other EU regulations

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

ISO-OCTYL ACRYLATE (CAS 29590-42-9) Tosyl isocyanate (CAS 4083-64-1)

Other regulations

Pregnant women should not work with the product, if there is the least risk of exposure. 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. Additional information is given in the Safety Data Sheet.

National regulations

Follow national regulation for work with chemical agents. 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.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

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.

H361 Suspected of damaging fertility or the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

Revision information Composition / Information on Ingredients: Ingredient Classification

SECTION 8: Exposure controls/personal protection: Respiratory protection

Training information Follow training instructions when handling this material.

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

Material name: Humiseal UV500