



SAFETY DATA SHEET

Section 1: Identification of the hazardous chemical and of the supplier

Product identifier HumiSeal 1C63

Other means of identification

Product code BZ0000-216

Recommended use of the chemical and restrictions on use

Recommended use Protective Coating for Printed Circuit Board

Recommended restrictions No other uses are advised.

Details of principal suppliers

Manufacturer

Company name CHASE CORPORATION Zeta Drive Plant
Address 201 Zeta Drive

Pittsburgh, Pennsylvania 15238
United States

Telephone 1-866-932-0800

E-mail techsupport@humiseal.com

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

Section 2: Hazard identification

Physical hazards Not classified.

Health hazards Serious eye damage or eye irritation Category 1

Skin sensitization Category 1

Environmental hazards Not classified.

Label elements



Signal word Danger

Hazard statement

H317 May cause allergic skin reaction.

H318 Causes serious eye damage.

Precautionary statement

Prevention

P261 Avoid breathing mist/vapors.

P280 Wear eye protection/face protection.

P280 Wear protective gloves.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Storage	Not available.
Disposal	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards which do not result in classification	None known.
Supplemental information	7% of the mixture consists of component(s) of unknown acute inhalation toxicity. 16% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 14% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

Section 3: Composition and information of the ingredients of the hazardous chemical

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butan-2-one O,O',O''-(vinylsilyldiylne)trioxime		2224-33-1	5 - < 10
Silane, dichlorodimethyl-, reaction products with silica		68611-44-9	5 - < 10
2-hydroxy-2-methylpropiofenone		7473-98-5	1 - < 3

Section 4: 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	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 immediately.
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. Permanent eye damage including blindness could result. 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	Wash contaminated clothing before reuse.

Section 5: Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical 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	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	Move containers from fire area if you can do so without risk.
HAZCHEM code	None.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

Section 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. 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.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

Methods and materials 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. For waste disposal, see section 13 of the SDS.

Section 7: Handling and storage**Precautions for safe handling**

Do not get this material in contact with eyes. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities

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

Section 8: Exposure controls and personal protection**Occupational exposure limits**

Malaysia. OELs, Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000: Schedule 1

Components	Type	Value	Form
Silane, dichlorodimethyl-, reaction products with silica (CAS 68611-44-9)	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Inhalable particulate.

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended.

Skin protection**Hand protection**

For prolonged or repeated skin contact use suitable protective gloves.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Not applicable.

General hygiene considerations Contaminated work clothing should not be allowed out of the workplace.

Section 9: Physical and chemical properties**Appearance****Physical state**

Liquid.

Form

Liquid.

Color

Translucent

Odor

Sulphurous.

Odor threshold

Not available.

pH

Does not apply.

Melting point/freezing point

3110 °F (1710 °C) estimated

Initial boiling point and boiling range

4046 °F (2230 °C) estimated

Flash point

>392.0 °F (>200.0 °C)

Evaporation rate

<1 BuAc

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0.0002 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 Not available.

Decomposition temperature Not available.

Viscosity > 2000 - < 5000 cP

Viscosity temperature 77 °F (25 °C)

Other information

Brookfield viscosity > 2000 - < 5000 cP

Density 1.04 g/cm³

Explosive properties Not explosive.

Miscible (water) Negligible

Oxidizing properties Not oxidizing.

Specific gravity 1.04

VOC <50 g/l

Section 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 Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

Section 11: Toxicological information**Information on likely routes of exposure**

Inhalation Prolonged inhalation may be harmful.

Skin contact May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Not known.

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

Components	Species	Test Results
Butan-2-one O,O',O''-(vinylsilyldiylne)trioxime (CAS 2224-33-1)		
Acute		
Dermal		
LD50	Rat	> 2009 mg/kg, 24 Hours
Oral		
LD50	Rat	> 2000 mg/kg
Silane, dichlorodimethyl-, reaction products with silica (CAS 68611-44-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
<i>Dust</i>		
LC50	Rat	2.19 mg/l, 4 Hours
Oral		
LD50	Rat	> 2000 mg/kg

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

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
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

Silane, dichlorodimethyl-, reaction products with silica (CAS 68611-44-9)	3 Not classifiable as to carcinogenicity to humans.
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Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

Section 12: Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Product		Species	Test Results
HumiSeal 1C63			
Aquatic			
Acute			
Algae	EC50	Algae	97.5 mg/l, 72 hours estimated
Crustacea	EC50	Daphnia	5950 mg/l, 48 hours estimated
Components		Species	Test Results
2-hydroxy-2-methylpropiophenone (CAS 7473-98-5)			
Aquatic			
Acute			
Algae	EC50	Algae	1.95 mg/l, 72 hours

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

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.

Section 13: Disposal information

Disposal instructions	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.
Local disposal regulations	Dispose in accordance with all applicable regulations.
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.

Section 14: Transportation information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

HAZCHEM code None.

General information IMDG Regulated Marine Pollutant.

Section 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Active Ingredients of Pesticide Product (Pesticide Act 1974, First Schedule, as amended through October 1, 2004)

Not regulated.

CWC (Chemical Weapons Convention) Act 2005, Schedules 1-3, as amended through CWC Regulations 2007, October 5, 2007)

Not regulated.

Medical Surveillance Chemicals, Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000: Schedule 2

Silane, dichlorodimethyl-, reaction products with silica (CAS 68611-44-9)

Ozone Depleting Substances (ODS) (Environmental Quality (Prohibition on the Use of CFC and Other Gases as Propellants and Blowing Agents) Order 1993, Dec. 31, 1993)

Not regulated.

Prohibited Use of Substances [Occupational Safety and Health (Prohibition of Use of Substance) Order 1999]

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

Section 16: Other information

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List of abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstract Service.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

MARPOL: International Convention for the Prevention of Pollution from Ships.

NTP: National Toxicology Program.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit.

TWA: Time Weighted Average.

References

Not available.

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

Physical & Chemical Properties: Multiple Properties