

Section 1: Identification

Product identifier

- Product Name** • UHTR-IPA
- Chemical Name** • Siloxane/Silsesquioxane
- Synonyms** • High Temperature Glass Resin
- Product Description** • Clear liquid with alcohol odor.
- Relevant identified uses of the substance or mixture and uses advised against**
- Recommended use** • Composites & Coatings

Details of the supplier of the safety data sheet

- Manufacturer** • Techneglas, LLC
2100 N Wilkinson Way
Perrysburg, OH 43551
United States
www.techneglas.com

Telephone (General) • 419-873-2000

Emergency telephone number

- Manufacturer** • 800-424-9300 - CHEMTREC
- Manufacturer** • 703-527-3887 - CHEMTREC - International

Section 2: Hazard Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

Classification of the substance or mixture

- CLP** • Eye Irritation 2 - H319
Acute Toxicity Oral 4 - H302
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
Flammable Liquids 2 - H225

Label Elements

CLP

- Hazard statements** • H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements

- Prevention** • P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 P233 - Keep container tightly closed.
 P240 - Ground and/or bond container and receiving equipment.
 P241 - Use explosion-proof - electrical, ventilating and/or lighting equipment.
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P261 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.
 P264 - Wash thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves.

Other Hazards

CLP

- No data available

UN GHS Revision 3

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Third Revised Edition

Classification of the substance or mixture

UN GHS

- Flammable Liquids 2
- Eye Irritation 2A
- Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects

Label elements

UN GHS

DANGER



- Hazard statements** • Causes serious eye irritation
 Highly flammable liquid and vapors
 May cause drowsiness or dizziness

Precautionary statements

- Prevention** • Ground and/or bond container and receiving equipment.
 Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
 Keep container tightly closed.
 Take precautionary measures against static discharge.
 Use only non-sparking tools.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Avoid breathing dust, fume, gas, mist, vapors and/or spray.
- Response** • If eye irritation persists: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

In case of fire: Use appropriate media water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.

IF INHALED: 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.

Storage/Disposal • Store in a well-ventilated place. Keep cool.
Store locked up.

Other hazards

UN GHS • No data available

See Section 12 for Ecological Information.

Section 3 - Composition/Information on Ingredients

Substances

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Isopropyl alcohol	CAS: 67-63-0 EINECS: 200-661-7	35%	Inhalation-Rat LC50 • 16000 ppm 8 Hour(s) Ingestion/Oral-Mouse LD50 • 3600 mg/kg Skin-Rabbit LD50 • 12800 mg/kg Ingestion/Oral-Mouse LD50 • 3600 mg/kg Inhalation-Mouse LC50 • 53000 mg/m ³ Ingestion/Oral-Rat LD50 • 5000 mg/kg Inhalation-Rat LC50 • 72600 mg/m ³		NDA
siloxane polymer/ silsequioxane	CAS: 68440-81-3 KE: 31188	65%		EU CLP: UN GHS Revision 3:	NDA

See Section 11 for Toxicological Information.

Section 4: First-Aid Measures

Description of first aid measures

Inhalation • Get medical attention if symptoms occur. Give artificial respiration if victim is not breathing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin • Get medical attention if symptoms occur. IF ON SKIN: Wash with plenty of soap and water.

Eye • If eye irritation persists: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion • Consult physician. Gastric lavage may be necessary. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

- No data available

Indication of any immediate medical attention and special treatment needed

See Section 2 for Potential Health Effects.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • In case of fire use dry chemical, CO2 alcohol resistant foam, or other extinguishing media as appropriate.

Unsuitable Extinguishing Media • No data available.

Firefighting Procedures • CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. this material is a flammable liquid and a dangerous fire hazard when exposed to heat or flame.

Hazardous Combustion Products • Oxides of carbon, silicon dioxide, water.

Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Do not walk through spilled material. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.

Emergency Procedures • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep out of low areas. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • A fine water spray remotely directed to the edge of the spill pool can be used to direct and maintain a hot flare fire which will burn the spilled material in a controlled manner. Use appropriate Personal Protective Equipment (PPE) A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. All equipment used when handling the product must be grounded. LARGE SPILLS: Dike far ahead of spill for later disposal. SMALL SPILLS: Take up with sand or other non-combustible absorbent material and

place into containers for later disposal.
Stop leak if you can do it without risk.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Keep away from fire. Keep away from heat and sparks. All equipment used when handling the product must be grounded.

Conditions for safe storage, including any incompatibilities

Storage

- Keep away from fire. Keep container tightly closed.

Incompatible Materials or Ignition Sources

- Keep away from combustible and flammable materials. Keep away from oxidizing agents and combustible materials.

Other Information

- No data available.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	China	France	Germany DFG	Germany TRGS
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL	700 mg/m3 STEL	400 ppm STEL [VLCT]; 980 mg/m3 STEL [VLCT]	Not established	Not established
	TWAs	200 ppm TWA	350 mg/m3 TWA	Not established	Not established	200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 500 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)
	Ceilings	Not established	Not established	Not established	400 ppm Peak; 1000 mg/m3 Peak	Not established
	MAKs	Not established	Not established	Not established	200 ppm TWA MAK; 500 mg/m3 TWA MAK	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Japan	Korea	NIOSH	OSHA	Poland
Isopropyl alcohol (67-63-0)	Ceilings	400 ppm Ceiling; 980 mg/m3 Ceiling	Not established	Not established	Not established	Not established
	STELs	Not established	400 ppm STEL (Serial No. 471); 980 mg/m3 STEL (Serial No. 471)	500 ppm STEL; 1225 mg/m3 STEL	Not established	1200 mg/m3 STEL [NDSCh]
	TWAs	Not established	200 ppm TWA (Serial No. 471); 480 mg/m3 TWA (Serial No. 471)	400 ppm TWA; 980 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA	900 mg/m3 TWA [NDS]

Exposure Limits/Guidelines (Con't.)			
	Result	United States - Michigan	United States - Oregon
Isopropyl alcohol (67-63-0)	STELs	500 ppm STEL; 1225 mg/m ³ STEL	Not established
	TWAs	400 ppm TWA; 980 mg/m ³ TWA	400 ppm TWA; 980 mg/m ³ TWA

Exposure Control Notations

ACGIH

• Isopropyl alcohol (67-63-0): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany DFG

• Isopropyl alcohol (67-63-0): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental

ACGIH

• Isopropyl alcohol (67-63-0): **BEIs:** (40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)) |

TLV Basis - Critical Effects: (CNS impairment; eye and upper respiratory tract irritation)

Exposure controls

Engineering

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Measures/Controls

Personal Protective Equipment

Pictograms



Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear eye/face protection - safety glasses with side shields, - if pouring or if there is a potential of material splashing on the face a face shield is required.

Hands

- Wear protective gloves - wear chemical resistant gloves. Consult with your glove supplier or manufacturer to ensure suitability.

Skin/Body

- Wear protective clothing - Choose body protection according to the amount and concentration of the dangerous substance at the work place.

General Industrial

Hygiene Considerations

- Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure

Controls

- No data available

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	No data available.
Color	Clear liquid with slight haze.	Odor	Organic, alcohol odor.
General Properties			
Boiling Point	82 °C(179.6 °F)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	Heat of Decomposition	No data available
pH	No data available	Specific Gravity/Relative Density	>1 Water=1
Density	8.7 lbs/gal	Bulk Density	No data available
Water Solubility	Soluble 8 to 12 %	Solvent Solubility	No data available
Viscosity	~100cPs	Explosive Properties	No data available
Oxidizing Properties:	No data available		
Volatility			

Flammability			
Flash Point	55 °F / 13°C CC (Closed Cup)	UEL	12 % estimate
LEL	2.5 % estimate	Autoignition	No data available
Self-Accelerating Decomposition Temperature (SADT)	No data available	Heat of Combustion (ΔH_c)	No data available
Burning Time	No data available	Flame Height	No data available
Flame Extension	No data available	Ignition Distance	No data available
Flame Duration	No data available	Flammability (solid, gas)	No data available
Environmental			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

Key to abbreviations

NDA = No Data Available

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization not indicated.

Conditions to avoid

- No data available. Excess heat.

Incompatible materials

- Incompatible Materials: Strong mineral acids and strong oxidizers

Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

Information on toxicological effects

		Components
Isopropyl alcohol (35%)	67-63-0	Acute Toxicity: Inhalation-Rat LC50 • 16000 ppm 8 Hour(s); Irritation: Eye-Rabbit • 100 mg • Severe irritation; Eye-Rabbit • 10 mg • Moderate irritation; Skin-Rabbit • 500 mg • Mild irritation

GHS Properties	Classification
Acute toxicity	EU/CLP •Acute Toxicity - No data available; Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation - Not relevant; Acute Toxicity - Oral 4 UN GHS 3 •Acute Toxicity - No data available; Acute Toxicity - Dermal - Not

	relevant; Acute Toxicity - Inhalation - Not relevant; Acute Toxicity - Oral - No data available; No data available
Skin corrosion/Irritation	EU/CLP•Not relevant UN GHS 3•Not relevant
Serious eye damage/Irritation	EU/CLP•Eye Irritation 2 UN GHS 3•Eye Irritation 2A
Skin sensitization	EU/CLP•Not relevant UN GHS 3•Not relevant
Respiratory sensitization	EU/CLP•Not relevant UN GHS 3•Not relevant
Aspiration Hazard	EU/CLP•No data available UN GHS 3•No data available
Carcinogenicity	EU/CLP•Not relevant UN GHS 3•Not relevant
Germ Cell Mutagenicity	EU/CLP•Not relevant UN GHS 3•Not relevant
Toxicity for Reproduction	EU/CLP•Not relevant UN GHS 3•No data available
STOT-SE	EU/CLP•Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects UN GHS 3•Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
STOT-RE	EU/CLP•Not relevant UN GHS 3•Not relevant

Medical Conditions Aggravated by Exposure • No data available.

Potential Health Effects

Inhalation

Acute (Immediate)

- May cause irritation.

Chronic (Delayed)

- Repeated and prolonged exposure may be harmful.

Skin

Acute (Immediate)

- May cause irritation.

Chronic (Delayed)

- Repeated and prolonged exposure may be harmful.

Eye

Acute (Immediate)

- Causes serious eye irritation.

Chronic (Delayed)

- Repeated and prolonged exposure may be harmful.

Ingestion

Acute (Immediate)

- May cause irritation.

Chronic (Delayed)

- Repeated and prolonged exposure may be harmful.

Other

Acute (Immediate)

- May cause irritation.

Mutagenic Effects

- No data available.

Carcinogenic Effects

- No data available.

Reproductive Effects • No data available.

Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- No data available

Persistence and degradability

- No data available.

Bioaccumulative potential

- No data available.

Mobility in Soil

- No data available.

Other adverse effects

Ecological Fate • No data available.

Potential Environmental Effects • No data available.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN1866	Resin solution, flammable	3	II	Not Listed
TDG	UN1866	RESIN SOLUTION, flammable	3	II	NDA
ADR/RID	NDA	NDA	NDA	NDA	NDA
IATA/ICAO	UN1866	Resin Solution	3	II	Not Listed

Special precautions for user • No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Other information

- Do not store and transport with oxidizers etc.

Section 15 - Regulatory Information

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

SARA Hazard Classifications • No data available

State Right To Know

Component	CAS	MA	PA
Isopropyl alcohol	67-63-0	Yes	Yes

Inventory						
Component	CAS	Canada DSL	China	EU EINECS	Japan ENCS	Korea KECL
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes

Inventory (Con't.)		
Component	CAS	TSCA
Isopropyl alcohol	67-63-0	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

•Isopropyl alcohol 67-63-0 B2, D2B (including 70%)

Canada - WHMIS - Ingredient Disclosure List

•Isopropyl alcohol 67-63-0 1 %

China

Other

China - Dangerous Goods List

•Isopropyl alcohol 67-63-0 UN1219

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

•Isopropyl alcohol 67-63-0 F; R11 Xi; R36 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

•Isopropyl alcohol 67-63-0 F Xi R:11-36-67 S:(2)-7-16-24/25-26

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

•Isopropyl alcohol 67-63-0 S:(2)-7-16-24/25-26

India

Environment

India - Hazardous Chemical Rules - List of Hazardous and Toxic Chemicals

•Isopropyl alcohol 67-63-0

Japan

Labor

Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Label

•Isopropyl alcohol 67-63-0 1 % weight

Japan - ISHL Prevention of Organic Solvent Poisoning

•Isopropyl alcohol 67-63-0 Class 2

Environment

Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)

•Isopropyl alcohol 67-63-0 2-(8)-319

Other

Japan - Examined Existing Chemical Substances

•Isopropyl alcohol 67-63-0 Decomposable

Japan - Japanese Pharmacopoeia Listing - Synthetics

•Isopropyl alcohol 67-63-0

Japan - ISHL Working Environment Evaluation Standards - Administrative Control Levels

•Isopropyl alcohol 67-63-0 200 ppm ACL

United States

Environment

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

•Isopropyl alcohol

67-63-0

1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

United States - California

Labor

U.S. - California - Air Toxics Hot Spots Act - Acute Reference Exposure Levels (RELs)

•Isopropyl alcohol

67-63-0

3200 µg/m³ REL

U.S. - California - Air Toxics Hot Spots Act - Chronic Reference Exposure Levels (RELs)

•Isopropyl alcohol

67-63-0

7000 µg/m³ REL (inhalation)

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

•Isopropyl alcohol

67-63-0

Section 16 - Other Information

Revision Date

• April 2019

Last Revision Date

• April 2019

Preparation Date

• Jan 2018

Disclaimer/Statement of Liability

• The laws and regulations cited in this MSDS are not intended to be comprehensive. Please check all local laws and regulations prior to use of this product. This MSDS is based on information which is believed to be reliable, but may be subject to change as new information becomes available. Because it is not possible to anticipate all conditions of use, additional safety precautions may be required. Since the use of this material is not under Techneglas' control, each user is responsible for making its own determination as to the safe and proper handling of this material based upon local laws and regulations and in its own particular use of this material.