

Section 1: Identification

Product identifier:

Product Name
R-SEAL 2000 LF

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

Recommended use Liquid Flushing (For further information, refer to product data sheet.)

Details of the supplier of the safety data sheet:

Rmax Operating, LLC
13524 Welch Road
Dallas, TX 75244
United States
www.rmax.com
Rmax@rmax.com
Telephone (General) 972-387-4500

Emergency telephone number only:
Call CHEMTREC
Day or Night within USA and Canada:
1-800-424-9300

Section 2: Hazard Identification

GHS Classification

Flammable liquids, Category 4	H227: Combustible liquid.
Carcinogenicity, Category 1A (inhalation)	H350i: May cause cancer by inhalation.
Specific target organ systemic toxicity - repeated exposure, Category 2, Bladder	H373: May cause damage to organs through prolonged or repeated exposure

GHS label elements

Hazard pictograms



Signal Word

Danger

Hazard Statements

H227 Combustible liquid.
H350i May cause cancer by inhalation.
H373 May cause damage to organs (Bladder) through prolonged or repeated exposure.

Precautionary Statements

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P281 Use personal protective equipment as required.

Response:

P308 + P313 If exposed or concerned: Get medical advice/ attention.
P370 + P378 In case of fire: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment for extinction.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

See Section 11 for more detailed information on health effects and symptoms.

There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration $\geq 1\%$.

Section 3 - Composition/Information on Ingredients

Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
trimethoxyvinylsilane	2768-02-7	$\geq 1 - < 2\%$
Quartz (SiO ₂)	14808-60-7	$\geq 0.1 - < 1\%$

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4: First-Aid Measures

If inhaled	Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
In case of eye contact	Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Carcinogenic effects See Section 11 for more detailed information on health effects and symptoms. May cause cancer by inhalation. May cause damage to organs through prolonged or repeated exposure.
Protection of first-aiders	Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.
Notes to physician	Treat symptomatically.

Section 5: Fire-Fighting Measures

Suitable extinguishing media	Carbon dioxide (CO ₂)
Unsuitable extinguishing media	Water

Specific extinguishing methods

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
 Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.
 Deny access to unprotected persons.

Environmental precautions

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.
 Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
 Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Advice on safe handling

Do not breathe vapors or spray mist.
 Avoid exceeding the given occupational exposure limits (see section 8).
 Do not get in eyes, on skin, or on clothing.
 For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the application area.
 Follow standard hygiene measures when handling chemical products.

Conditions for safe storage

Prevent unauthorized access.
 Store in original container.
 Keep in a well-ventilated place.
 Observe label precautions.
 Store in accordance with local regulations.

Materials to avoid

No data available

Section 8 - Exposure Controls/Personal Protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO2)	14808-60-7	OSHA Z-3	TWA	10 mg/m3 / %SiO2+2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO2+5 respirable
		OSHA P0	TWA	0.1 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

**Basis

- ACGIH. Threshold Limit Values (TLV)
- OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values)
- OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant
- OSHA P2. Permissible Exposure Limits (PEL), Table Z-2
- OSHA Z3. Table Z-3, Mineral Dust

Engineering measures

Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

Personal protective equipment

Respiratory protection

Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/ vapor/ aerosol/ particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures

Avoid contact with skin, eyes and clothing.
 Wash hands before breaks and immediately after handling the product.
 Remove respiratory and skin/eye protection only after vapors have been cleared from the area.
 Remove contaminated clothing and protective equipment before entering eating areas.

Section 9 - Physical and Chemical Properties

Appearance	Paste	Melting point/ range / Freezing point	No data available
Color	Dark bronze	Boiling point/ boiling range	No data available
Odor	None	Vapor pressure	0.01 mmHg (0.01 hpa)
Odor Threshold	No data available	Density	1.46 g/cm ³ at 74.7 °F (23.7 °C)
Flash point	176 °F (80 °C)	Water solubility	Note: insoluble
Ignition temperature	No data available	Partition coefficient: noctanol/ water	No data available
Decomposition temperature	No data available	Viscosity, dynamic	No data available
Lower explosion limit (Vol%)	No data available	Viscosity, kinematic	> 20.5 mm ² /s
Upper explosion limit (Vol%)	No data available	Relative vapor density	No data available
Flammability (solid, gas)	No data available	Evaporation rate	No data available
Oxidizing properties	No data available	Burning rate	No data available
pH	Note: Not applicable	Volatile organic compounds (VOC) content	13 g/l

Section 10: Stability and Reactivity

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions	Stable under recommended storage conditions.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	No data available

Section 11 - Toxicological Information

Acute toxicity	Not classified based on available information.
Ingredients: trimethoxyvinylsilane:	
Acute oral toxicity	LD50 Oral (Rat): ca. 7,120 mg/kg
Acute inhalation toxicity	LC50: ca. 16.8 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	LD50: 3,540 mg/kg
Skin corrosion/irritation	Not classified based on available information.
Serious eye damage/eye irritation	Not classified based on available information.
Respiratory or skin sensitization	Skin sensitization: Not classified based on available information. Respiratory sensitization: Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Reproductive toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	May cause damage to organs (Bladder) through prolonged or repeated exposure.
Aspiration toxicity	Not classified based on available information.
Carcinogenicity	May cause cancer by inhalation.
IARC	Group 1: Carcinogenic to humans Quartz (SiO ₂) 14808-60-7
NTP	Known to be human carcinogen Quartz (SiO ₂) 14808-60-7

Section 12 - Ecological Information

Other information	Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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Section 13 - Disposal Considerations

Disposal methods	
Waste from residues	Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 - Transport Information

DOT	Not dangerous goods
IATA	Not dangerous goods
IMDG	Not dangerous goods
Special precautions for user	No data available
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

Section 15 - Regulatory Information

TSCA list	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
EPCRA - Emergency Planning and Community Right-to-Know CERCLA Reportable Quantity	This material does not contain any components with a CERCLA RQ.
SARA304 Reportable Quantity	This material does not contain any components with a section 304 EHS RQ.
SARA 311/312 Hazards	Flammable (gases, aerosols, liquids, or solids) Carcinogenicity Specific target organ toxicity (single or repeated exposure)
SARA 302	This material does not contain any components with a section 302 EHS TPQ.
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Clean Air Act Ozone-Depletion Potential	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
California Prop 65	 WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Section 16 - Other Information

HMIS Classification

Health	*	3
Flammability		2
Physical Hazard		0
Personal Protection		X

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