

Conforms to OSHA HazCom 2012 Standard and WHMIS 2015

SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: RTV Silicone
Product Code: Cat. No. S450

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Product Use: Sealant

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEETS

Name/Address: Frameless Hardware Company
4361 Firestone Blvd
South Gate, CA 90280

Telephone Number: 888-295-4531

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC 1-800-424-9300 (US and Canada)
INTERNATIONAL + 1-703-527-3887
CCN1003004

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL IN ACCORDANCE WITH PARAGRAPH (d) OF 29 CFR 1910.1200 (OSHA HAZCOM2012)

Skin Irritation	Category 2
Eye Irritation	Category 2A
Skin Sensitization	Category 1
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 2
Specific Target Organ Toxicity – Repeated Exposure	Category 2

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM2012

2.2a SIGNAL WORD:
DANGER!

2.2b HAZARD STATEMENTS

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause cancer
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure

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2.2c HAZARD PICTOGRAMS



2.2d PRECAUTIONARY STATEMENTS

i. PREVENTION	Wash hands thoroughly after handling. Do not breathe vapors/fumes. Do not eat, drink or smoke while using this product. Use in a well ventilated area. Wear impervious gloves/protective clothing/eye protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Contaminated work clothing must not be allowed out of the workplace.
ii. RESPONSE	If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: 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 eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.
iii. STORAGE	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
iv. DISPOSAL	Dispose of contents/containers in accordance with all local, state, provincial, and federal regulations.

2.3 ADDITIONAL INFORMATION

2.3a HNOC – HAZARDS NOT OTHERWISE CLASSIFIED

Not Applicable

2.3b UNKNOWN ACUTE TOXICITY

47.6% of the mixture consists of ingredient(s) of unknown acute toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Chemical Name	CAS Number	Weight %
Methyltri(ethylmethyletoxime) silane	22984-54-9	5 – 10%*
Aminoalkoxysilane	1760-24-3	0.5 – 1.5%*
Octamethylcyclotetrasiloxane	556-67-2	0.1 – 1.0%*
Crystalline Silica, Quartz***	14808-60-7	0.1 – 1.0%*

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Methanol**	67-56-1	0.0 – 2.0%*
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**Methanol is not a component in the formulation of this product, however, as this product cures, methanol gas is evolved.

***Inhalation of particulates unlikely due to product's physical state.

*Means that the component will fall into one of the ranges specified due to batch-to-batch variability and to protect Confidential Business Information.

Section 4: FIRST-AID MEASURES

4.1 DESCRIPTION OF THE FIRST-AID MEASURES

ROUTES OF EXPOSURE	DESCRIPTION
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of soap and water. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: get medical attention/advice. Take off contaminated clothing and wash before reuse.
Inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Ingestion:	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

ROUTES OF EXPOSURE	DESCRIPTION
Eye Contact:	Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Skin Contact:	Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause an allergic skin reaction.
Inhalation:	May cause respiratory tract irritation. May cause damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious disabling and fatal lung disease.
Ingestion:	May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

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Note to Physicians: Symptoms may not appear immediately.

Specific Treatments: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

Flammability: Not Flammable/Not Combustible by WHMIS/OSHA HAZCOM2012 Criteria

5.2 EXTINGUISHING MEDIA

5.2a. Suitable Extinguishing Media:
Treat for surrounding material.

5.2b. Unsuitable Extinguishing Media:
Water

5.3 SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

5.3a. Products of Combustion:
By heating and fire, harmful vapors/gases may be formed. Nitrogen Oxides(corrosive)

5.3b. Explosion Data

- i. **Sensitivity to Mechanical Impact:**
Not Available
- ii. **Sensitivity to Static Discharge:**
Not Available

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear(full bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Methods for Containment: Recover all usable material. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

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Methods for Cleaning-Up: Dispose of unwanted material properly in accordance with all local, regional, national and international regulations.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Use in well-ventilated areas. Wear impervious gloves and eye protection. Do not mix with other chemical products, except as indicated by the manufacturers. Do not get in eyes. Do not get on skin or clothing. Do not breathe vapors/fumes. Do not take internally.

General Hygiene Advice: Use good industrial hygiene practices and wear recommended personal protection. Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Store locked up. Keep out of the reach of children. Keep container tightly closed. Store at room temperature and keep containers closed when not in use.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETER

Exposure Guidelines:

Occupational Exposure Limits		
Chemical Name	OSHA-PEL	ACGIH-TLV
Methyltri(ethylmethylketoxime) silane	Not Available	Not Available
Aminoalkoxysilane	Not Available	Not Available
Octamethylcyclotetrasiloxane	Not Available	10 ppm
Crystalline Silica, Quartz***	0.05 mg/m ³	0.025 mg/m ³ (Resp.)
Methanol	200 ppm	200 ppm

***Inhalation of particulates unlikely due to product's physical state.

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTION MEASURES

8.3a. Personal Protective Equipment:

- i. **Eye/Face Protection:** Wear approved eye protection [properly fitted dust- or splash-proof chemical safety goggles/face (face shield)]

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ii. Skin Protection:

1. **Hand Protection:** Wear impervious gloves, such as nitrile.
2. **Body Protection:** Wear suitable protective clothing.

iii. **Respiratory Protection:** A NIOSH approved respirator or filtering face piece, such as N95, is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

iv. **General Health and Safety Measures:** Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Opaque Paste
Odor:	Oxime
Odor Threshold:	Mild
pH:	Not Available
Melting point/Freezing point:	Not Available
Initial boiling point and boiling range:	Not Available
Flash point:	Not Available
Evaporation rate (Water=1):	Not Available
Flammability:	Not Flammable/Not Combustible
Upper Flammability/Explosive Limit:	Not Available
Lower Flammability/Explosive Limit:	Not Available
Vapor Pressure	Not Available
Vapor Density:	Not Available
Relative Density:	1.10 – 1.20 g/mL
Solubility in Water:	Insoluble
Partition coefficient: n-octanol/water:	Not Available
Auto-ignition temperature:	Not Available
Decomposition Temperature:	Not Available
Viscosity (cps):	Not Available
VOC Content:	<34 g/L, less water and exempt solvents

Section 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2. CHEMICAL STABILITY

Stable under normal storage conditions. Keep dry in storage.

10.3. POSSIBILITY OF HAZARDOUS REACTION

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No dangerous reaction known under conditions of normal use.

10.4. CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5. INCOMPATIBLE MATERIALS

Strong oxidizing agents. Water and moisture.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

This product reacts with water, moisture, or humid air to evolve: Methylethylketoxime. Thermal breakdown of this product during fire or extreme heat may evolve: Carbon Oxides, Silicon Dioxide, Nitrogen Oxide, Formaldehyde.

Section 11: TOXICOLOGICAL INFORMATION

11.1. LIKELY ROUTES OF EXPOSURE:

Skin contact, eye contact, inhalation, and ingestion.

11.2. SYMPTOMS RELATED TO PHYSICAL/CHEMICAL/TOXICOLOGICAL CHARACTERISTICS:

Eye Contact: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin Contact: Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause an allergic skin reaction.

Inhalation: May cause respiratory tract irritation. May cause damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious disabling and fatal lung disease.

Ingestion: May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

Acute Toxicity(ATE _{mix} = 3,245 mg/kg)		
Chemical Name	LC50	LD50
Methyltri(ethylmethylketoxime) silane	Not Available	Oral: >2,000 mg/kg, rat
Aminoalkoxysilane	Not Available	Oral: >7,500 mg/kg, rat
Octamethylcyclotetrasiloxane	Not Available	Oral: >4,800 mg/kg, rat
Crystalline Silica, Quartz	Not Available	Oral: >10,000 mg/kg, rat

Carcinogenicity	
Chemical Name	Chemical Listed as Carcinogens or Potential Carcinogen (NTP,IARC,OSHA,ACGIH,CP65)
Methyltri(ethylmethylketoxime) silane	Not Listed
Aminoalkoxysilane	Not Listed
Octamethylcyclotetrasiloxane	Not Listed
Crystalline Silica, Quartz	N-2, I-1, O-1, ACGIH-A2, CP65

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11.3. DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT AND LONG-TERM EXPOSURE

SHORT-TERM	
Skin Corrosion/Irritation:	Causes skin irritation
Serious Eye Damage/Irritation:	Causes serious eye irritation
Respiratory Sensitization:	Not Classified
Skin Sensitization:	May cause an allergic skin reaction
STOT-Single Exposure:	May cause respiratory irritation
Aspiration Hazard:	Not Classified
LONG-TERM	
Carcinogenicity:	May cause cancer
Germ Cell Mutagenicity:	Not Classified
Reproductive Toxicity:	Suspected of damaging fertility or the unborn child
STOT-Repeated Exposure:	May cause damage to organs through prolonged or repeated exposure
Synergistic/Antagonistic Effects:	Not Classified

Section 12: ECOLOGICAL INFORMATION

12.1. ECOTOXICITY

May cause long-term adverse effects to the aquatic environment. Keep from entry into sewers and waterways.

Ecotoxicity		
Chemical Name	EC50/NOEC-48 Hours	LC50/NOEC-96 Hours
Methyltri(ethylmethylketoxime) silane	Not Available	Not Available
Aminoalkoxysilane	81 mg/L, Daphnia magna	597 mg/L, Brachydanio rerio
Octamethylcyclotetrasiloxane	Not Available	Not Available
Crystalline Silica, Quartz	Not Available	Not Available

12.2. PERSISTENCE AND DEGRADABILITY

Not Available

12.3. BIOACCUMULATIVE POTENTIAL

Not Available

12.4. MOBILITY IN SOIL

Not Available

12.5. OTHER ADVERSE EFFECTS

Not Available

Section 13: DISPOSAL CONSIDERATIONS

13.1. DISPOSAL METHOD

Dispose of contents/containers in accordance with all local, state, provincial, and federal regulations

13.2. OTHER DISPOSAL CONSIDERATIONS

Not Available

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Section 14: TRANSPORT INFORMATION

DOT (U.S.)	TDG (CANADA)	IATA
UN NUMBER:	UN NUMBER:	UN NUMBER:
Not Regulated	Not Regulated	Not Regulated
UN PROPER SHIPPING NAME:	UN PROPER SHIPPING NAME:	UN PROPER SHIPPING NAME:
Not Regulated	Not Regulated	Not Regulated
TRANSPORT HAZARD CLASS (ES):	TRANSPORT HAZARD CLASS (ES):	TRANSPORT HAZARD CLASS (ES):
Not Regulated	Not Regulated	Not Regulated
PACKING GROUP (if applicable):	PACKING GROUP (if applicable):	PACKING GROUP (if applicable):
Not Regulated	Not Regulated	Not Regulated

SUMMARY: Product is NOT regulated under DOT/TDG and other transportation regulations.

14.1. ENVIRONMENTAL HAZARDS

Not Available

14.2. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not Available

14.3. SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

US: SDS prepared pursuant to the Hazard Communication Standard (29 CFR 1910.1200) HazCom 2012


15.2. US FEDERAL INFORMATION:

CHEMICAL NAME	SARA TITLE III			
	SECTION 302 (EHS) TPQ (LBS)	SECTION 304 EHS RQ (LBS)	CERCLA RQ (LBS)	SECTION 313 (TRI)
Methyltri(ethylmethyletoxime) silane	Not Listed	Not Listed	Not Listed	Not Listed
Aminoalkoxysilane	Not Listed	Not Listed	Not Listed	Not Listed
Octamethylcyclotetrasiloxane	Not Listed	Not Listed	Not Listed	Not Listed
Crystalline Silica, Quartz	Not Listed	Not Listed	Not Listed	Not Listed

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15.3. US STATE RIGHT TO KNOW LAWS:

California Proposition 65:	 WARNING: This product can expose you to chemicals including methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
Other U.S. States "Right to Know" Lists:	Poly(Dimethylsiloxane): CAS#70131-67-8 Dimethyl siloxane: CAS#63148-62-9 Methyltri(ethylmethylketoxime) silane: CAS#22984-54-9 Aminoalkoxysilane: CAS#1760-24-3 Octamethylcyclotetrasiloxane: CAS#556-67-2 Crystalline Silica, Quartz: CAS#14808-60-7

15.4. GLOBAL INVENTORIES

Chemical Name	USA TSCA	Canada DSL/NDL
Methyltri(ethylmethylketoxime) silane	Yes	DSL
Aminoalkoxysilane	Yes	DSL
Octamethylcyclotetrasiloxane	Yes	DSL
Crystalline Silica, Quartz	Yes	DSL

15.5. NFPA AND HMIS RATINGS:

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HEALTH HAZARD

4 **EXTREME** - Highly toxic - May be fatal on short-term exposure.

3 **SERIOUS** - Toxic - Full protective suit and breathing apparatus should be worn.

2 **MODERATE** - Breathing apparatus and face mask must be worn.

1 **SLIGHT** - Breathing apparatus may be worn.

0 **MINIMAL** - No precautions necessary.

FLAMMABILITY HAZARD

4 **EXTREME** - Extremely flammable gas or liquid. Flash Point below 72°F.

3 **SERIOUS** - Flammable. Flash Point 73°F to 300°F.

2 **MODERATE** - Combustible. Requires moderate heating to ignite. Flash Point below 200°F.

1 **SLIGHT** - Slightly combustible. Requires strong heating to ignite.

0 **MINIMAL** - Will not burn under normal conditions.

SPECIFIC HAZARD

OXIDIZER **OXY**

ACID **ACID**

ALKALI **ALK**

CORROSIVE **COR**

Use NO WATER **W**

RADIATION ☢

INSTABILITY HAZARD

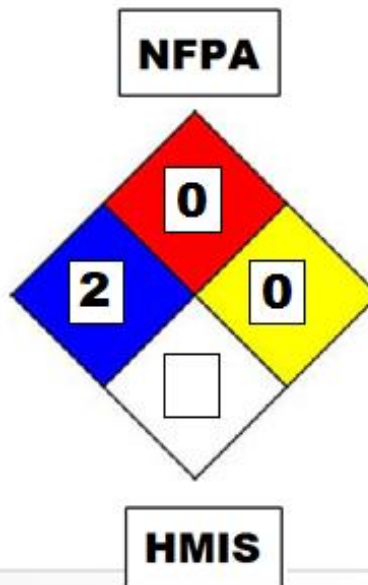
4 **EXTREME** - Explosive at room temperature.

3 **SERIOUS** - May detonate if shocked or heated under confinement or mixed with water.

2 **MODERATE** - Unstable. May react with water.

1 **SLIGHT** - May react if heated or mixed with water.

0 **MINIMAL** - Normally stable. Does not react with water.



Hazard Index	
4	Severe Hazard
3	Serious Hazard
2	Moderate Hazard
1	Slight Hazard

2 HEALTH

0 FLAMMABILITY

0 REACTIVITY

X PERSONAL PROTECTION

PROTECTIVE EQUIPMENT INDEX

A	G
B	H
C	I
D	J
E	K
F	X Ask your supervisor for special handling instructions.

15.6. SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65	California Proposition 65
OSHA (O)	Occupational Safety and Health Administration
ACGIH (G)	American Conference of Governmental Industrial Hygienists <ul style="list-style-type: none"> A1 – Confirmed human carcinogen A2 – Suspected human carcinogen A3 – Animal carcinogen A4 – Not classifiable as a human carcinogen A5 – Not suspected a human carcinogen
IARC (I)	International Agency for Research on Cancer <ul style="list-style-type: none"> 1 – The agent (mixture) is carcinogenic to humans 2A – The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

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	<ul style="list-style-type: none"> • 2B – The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals. • 3 – The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans. • 4 – The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.
NTP (N)	National Toxicology Program <ul style="list-style-type: none"> • 1 – Known to be carcinogens • 2 – Reasonably anticipated to be carcinogens

Section 16: OTHER INFORMATION

Date of Preparation: June 28, 2019

Version: 1.1

Revision Date: July 1, 2020

Disclaimer: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by: Frameless Hardware Company
Phone: 888-295-4531

End of Safety Data Sheet