PRODUCT NAME: ABRO Ultra Plus Super High-Temp Silicone Gasket Maker Copper

PRODUCT NUMBER/SIZE: 418-AB / 3 oz. **Revision Date: 01/05/2016**

SECTION 1
Identification of the Substance and of the Company/Undertaking

MANUFACTURER'S NAME:	**ABRO INDUSTRIES, INC.**
ADDRESS:	**3580 Blackthorn Court South Bend, IN 46628 USA**
PRODUCT DESCRIPTION:	**Silicone Sealant**
COMPANY PHONE:	**574-232-8289**
EMERGENCY 24-HR TELEPHONE:	**Chemtrec: US/Canada 1-800-424-9300 International +1-703-527-3887**

SECTION 2
Hazards Identification

Classification:
Eye damage/irritation (chapter 3.3), Cat. 2A
Sensitization, skin (chapter 3.4), Cat. 1

Label Pictogram(s):

Signal Word:	**Warning**
Hazard Phrases:	Causes serious eye irritation. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. Harmful to aquatic life.
Precautionary Phrases:	Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	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 ON SKIN: Wash with plenty of water/...If skin irritation or a rash occurs: Get medical advice/attention. Specific treatment (see … on this label). Take off contaminated clothing and wash it before reuse.

Storage / Disposal: Dispose of contents/container to.

Statement regarding ingredients of unknown toxicity (OSHA) 39.5% of the mixture consists of ingredient(s) of unknown toxicity

SECTION 3
Composition/Information on Ingredients

Hazardous components

1. Siloxanes and Silicones, di-Me, hydroxy-terminated

Concentration	> 40 - < 70 % (Weight)
CAS no.	70131-67-8

2. POLYDIMETHYLSILOXANES

Concentration	> 10 - < 30 % (Weight)
Other names / synonyms	silicon oil; Siloxanes and Silicones, di-Me
CAS no.	63148-62-9

3. 2-Butanone, 2,2',2''-[O,O',O''-(ethenylsilylidyne)trioxime]

Concentration	> 5 - < 10 % (Weight)
Other names / synonyms	Vinyl tris (methylethylkeoxime)
CAS no.	2224-33-1

4. Silane, dichlorodimethyl-, reaction products with silica

Concentration	> 5 - < 10 % (Weight)
Other names / synonyms	Modified Silicone Dioxide
CAS no.	68611-44-9

5. 3-AMINOPROPYLTRIETHOXYSILANE

Concentration	> 0.1 - < 1 % (Weight)
Other names / synonyms	(3-Aminopropyl)triethoxysilane; 1-Propanamine, 3-(triethoxysilyl)-; 3-Triethoxysilylpropylamine; APTES
EC no.	213-048-4
CAS no.	919-30-2
Index no.	612-108-00-0

- Acute toxicity (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 1B

Harmful if swallowed
Causes severe skin burns and eye damage

SECTION 4
First Aid Measures

Description of Necessary First Aid Measures

General Advice: Get medical advice/attention if you feel unwell.

Eye contact:	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.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Skin contact:	IF ON SKIN:. Wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Ingestion:	IF SWALLOWED. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Personal protective equipment for first-aid responders	Use personal protective equipment as required.

Most important symptoms/effects (Acute and delayed)

See section 2 for more information.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5
Fire Fighting Measures

Extinguishing media

Suitable extinguishing media:	Carbon dioxide (CO2), Dry chemical, Foam
Specific hazards arising from the chemical:	None in particular
Special protective actions for fire-fighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Further Information:	Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

SECTION 6
Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin.

Use personal protective equipment as required.

Environmental precautions:	Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and materials for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so. Methods for cleaning up: Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable

containers for disposal. Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7
Handling and Storage

Precautions for safe handling

Protective measures:	Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.
Conditions for safe storage, including any incompatibilities:	Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Protect from moisture. Incompatible materials: Strong oxidizing agents, Acids, Iron

SECTION 8
Exposure Controls/Personal Protection

Appropriate engineering controls:	Showers Eyewash stations Ventilation systems

Individual protection measures, such as personal protective equipment (PPE):

Eye/ Face protection:	Wear safety glasses with side shields (or goggles).
Skin protection:	Wear protective gloves and protective clothing.
Body protection:	Wear protective gloves and protective clothing.
Respiratory protection:	Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.
Thermal Hazards:	Not detemined

SECTION 9
Physical and Chemical Properties

Appearance

Physical State:	Paste
Color:	Copper
Odor:	Mild
Odor Threshold:	No data available.
Ph:	Not available.
Melting Point/Freezing Point:	No data available.
Boiling Point:	Not available.
Flash Point:	>93° C / >199° F
Evaporation Rate:	< 1
Flammability (Solid, Gas):	No information available
Lower And Upper Explosive (Flammable) Limits:	No information available
Vapor Pressure:	<5mmHg @ 80°F
Vapor Density:	3

Relative Density:	1.04
Solubility (ies):	Not applicable.
Partition Coefficient: N-Octanol/Water:	No information available
Auto-Ignition Temperature:	No information available
Decomposition Temperature:	No information available
Viscosity:	No information available
Explosive properties	No information available
Oxidizing properties	No information available

SECTION 10
Stability and Reactivity

Reactivity: No Data Available

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: None under normal processing.

Conditions To Avoid: Excessive heat. Exposure to air or moisture over prolonged periods.

Incompatible Materials: Strong oxidizing agents, Acids, Iron.

Hazardous Decomposition Products:
Carbon oxides
Formaldehyde
May release 2-butanone oxime (ethyl methyl ketoxime) at elevated temperature

SECTION 11
Toxicological Information

Information on Toxicological Effects

Acute Toxicity:

Amorphous fumed silica:
Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Remarks: Information taken from reference works and the literature

Vinyltri (methylethylketoxime) silane:
Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Remarks: Based on test data
Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on test data

3-Aminopropyltriethoxysilane:
Acute oral toxicity : LD50 (Rat): 2,295 mg/kg
Remarks: Based on test data
Acute inhalation toxicity : LC50 (Rat): > 1.49 mg/l

	Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on test data Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on test data
Skin corrosion/irritation:	May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Serious eye damage/irritation:	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Respiratory or skin sensitization:	May cause irritation of respiratory tract.
Germ cell mutagenicity:	Not classified based on available information.
Carcinogenicity:	Not classified as a human carcinogen.
Reproductive toxicity:	Not classified based on available information.
Specific Target Organ Toxicity (Single Exposure):	Not classified based on available information.
Specific Target Organ Toxicity (Repeated Exposure):	Not classified based on available information.
Aspiration Hazard:	Not classified based on available information.
Additional information:	Ingestion may cause irritation to mucous membranes. Numerical measures of toxicity - Product Information The following values are calculated based on chapter 3.1 of the GHS document . ATEmix (oral) 30390 mg/kg ATEmix (dermal) 5412 mg/kg

SECTION 12
Ecological Information

Toxicity:	Methyltri(ethylmethylketoxime)silane: Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 120 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 94 mg/l

Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
Ecotoxicology Assessment
Acute aquatic toxicity : This product has no known ecotoxicological effects.

3-Aminopropyltriethyoxysilane:
Toxicity to fish : LC50 (Danio rerio (zebra fish)): 597 mg/l
Exposure time: 96 h
Method: Directive 67/548/EEC, Annex V, C.1.
Toxicity to daphnia and other aquatic invertebrates
: EC50 (Daphnia sp.): 81 mg/l
Exposure time: 48 h
Method: Directive 67/548/EEC, Annex V, C.2.
Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 8.8 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
NOEC (Selenastrum capricornutum (green algae)): 3.1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates
(Chronic toxicity): NOEC (Daphnia sp.): > 1 mg/l
Exposure time: 21 d
Toxicity to bacteria : EC50 (Pseudomonas putida): 67 mg/l
Exposure time: 16 h
Test Type: Growth inhibition
Method: DIN 38 412 Part 8

Persistence And Degradability:
Vinyltri (methylethylketoxime) silane:
Biodegradability : Result: Not readily biodegradable.
Stability in water : Degradation half life: 1 s

Bioaccumulative Potential:
3-Aminopropyltriethyoxysilane:
Partition coefficient: n- octanol/water : log Pow: -0.3

Mobility In Soil:

Soil/Water Partition Coefficient (K_{oc}): No data available

Other Adverse Effects: No data available

SECTION 13
Disposal Considerations

Disposal Methods:
Resource Conservation and Recovery Act (RCRA):
This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded
in its purchased form. Waste from residues : Dispose of in accordance with local regulations. Disposal of contaminated packaging: Dispose of as unused product. Empty containers should be taken to an approved waste handling site

for recycling or disposal. Waste treatment: No data Sewage disposal: No data.

SECTION 14
Transport Information

DOT (US):	Not dangerous goods
IMDG:	Not dangerous goods
IATA:	Not dangerous goods

SECTION 15
Regulatory Information

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

California Prop. 65 Components WARNING! This product contains a chemical known to the State of California to cause cancer.
Modified Silicone Dioxide 68611-44-9

SARA 311/312 Hazards
Acute health hazard

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.

New Jersey Right-to-Know
Modified Silicone Dioxide 68611-44-9

Massachusetts Right-to-Know
Modified Silicone Dioxide 68611-44-9

Pennsylvania Right-to-Know
Modified Silicone Dioxide 68611-44-9

Chemical Safety Assessment
International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chem (USA)

SECTION 16
Other Information

Hazardous Material Information System (U.S.A.)

Health: 1 **Flammability:** 1 **Physical Hazards:** 0

National Fire Protection Association (U.S.A.)

Health: 1 **Flammability:** 1 **Instability:** 0

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ABBREVIATIONS:

NG="NOT GIVEN"	BT="BETWEEN"
<="LESS THAN"	>="GREATER THAN"
ND = Not Determined	NA = Not Applicable

Full text of other abbreviations

NIOSH REL :	USA. NIOSH Recommended Exposure Limits
OSHA P0 :	USA. OSHA - TABLE Z-1 Limits for Air Contaminants -1910.1000
OSHA Z-1 :	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limitsfor Air Contaminants
OSHA Z-3 :	USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
NIOSH REL / TWA :	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST :	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA :	8-hour time weighted average
OSHA Z-1 / TWA :	8-hour time weighted average
OSHA Z-3 / TWA :	8-hour time weighted average