PRODUCT NAME: ABRO Silicone Cartridge Grey
PRODUCT NUMBER/SIZE: SS-999 **Revision Date: 06/23/2015**

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:	**Grey Oxime 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:
Sensitization, skin (chapter 3.4), Cat. 1
Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 2

Label Pictogram(s):

Signal Word:	**WARNING**
Hazard Phrases:	May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure.
Precautionary Phrases:	Do not breathe 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 ON SKIN: Wash with plenty of water. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Get medical advice/attention if you feel unwell.
Storage / Disposal:	Dispose of contents/ container in compliance with local and federal regulations.
Other:	Keep out of reach of children.

SECTION 3
Composition/Information on Ingredients

Hazardous components

1. Calcium carbonate (Natural)

Concentration	>= 35 - <= 50 % (Weight)
Other names / synonyms	Agricultural limestone; limestone; Marble chips; Natural calcium carbonate
CAS no.	1317-65-3

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

Concentration	>= 0.1 - < 4 % (Weight)
Other names / synonyms	Vinyl tris (methylethylketoxime)
CAS no.	2224-33-1

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

Concentration	>= 0.1 - < 3 % (Weight)
Other names / synonyms	Methyl tris (methylethylketoxime)
CAS no.	22984-54-9

4. Silica

Concentration	>= 1 - < 10 % (Weight)
Other names / synonyms	Siliceous earth, purified
CAS no.	7631-86-9

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

6. 1-Propanamine, 3-(trimethoxysilyl)-

Concentration	>= 0.1 - < 1 % (Weight)
CAS no.	13822-56-5

SECTION 4
First Aid Measures

Description of Necessary First Aid Measures

General Advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

Inhalation If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Skin contact:	In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye contact:	Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
Ingestion:	If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Personal protective equipment for first-aid responders:	First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Most important symptoms/effects (Acute and delayed)
May cause an allergic skin reaction.
May cause damage to organs through prolonged or repeated exposure if swallowed.

Indication of immediate medical attention and special treatment needed, if necessary:
Notes to physician: Treat symptomatically and supportively.

SECTION 5
Fire Fighting Measures

Extinguishing media

Suitable extinguishing media:	Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO2)
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	Exposure to combustion products may be a hazard to health.
Special protective actions for fire-fighters:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Further information:	Hazardous combustion products: Carbon oxides Metal oxides Silicon oxides Formaldehyde Nitrogen oxides (NOx)

SECTION 6
Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures:	Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Small spill: Soak up with inert absorbent material.

Large spill: For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

Reference to other sections

Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7
Handling and Storage

Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation: Use only with adequate ventilation.

Advice on safe handling : Do not get on skin or clothing. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from water. Protect from moisture. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage, including any incompatibilities: Keep in properly labeled containers. Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types: Strong oxidizing agents

SECTION 8
Exposure Controls/Personal Protection

Control parameters

1. Calcium Carbonate (CAS: 1317-65-3)
PEL (Inhalation): see PNOR (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

2. Calcium Carbonate, Total dust (CAS: 1317-65-3)
PEL (Inhalation): 15 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

3. Calcium Carbonate, Total dust (CAS: 1317-65-3)
PEL (Inhalation): 10 mg/m3 (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

4. Calcium Carbonate, Total dust (CAS: 1317-65-3)
REL (Inhalation): 10 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

5. Calcium Carbonate, Respirable fraction (CAS: 1317-65-3)
PEL (Inhalation): 5 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

6. Calcium Carbonate, Respirable fraction (CAS: 1317-65-3)
PEL (Inhalation): 5 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

7. Calcium Carbonate, Respirable fraction (CAS: 1317-65-3)
REL (Inhalation): 5 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

8. Limestone (CAS: 1317-65-3)
PEL (Inhalation): see PNOR (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

9. Limestone, Total dust (CAS: 1317-65-3)
PEL (Inhalation): 15 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

10. Limestone, Total dust (CAS: 1317-65-3)
PEL (Inhalation): 10 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

11. Limestone, Total dust (CAS: 1317-65-3)
REL (Inhalation): 10 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

12. Limestone, Respirable fraction (CAS: 1317-65-3)
PEL (Inhalation): 5 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

13. Limestone, Respirable fraction (CAS: 1317-65-3)
PEL (Inhalation): 5 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

14. Limestone, Respirable fraction (CAS: 1317-65-3)
REL (Inhalation): 5 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

15. Marble (CAS: 1317-65-3)
PEL (Inhalation): See PNOR (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

16. Marble, Total dust (CAS: 1317-65-3)
PEL (Inhalation): 15 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

17. Marble, Total dust (CAS: 1317-65-3)
PEL (Inhalation): 10 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

18. Marble, Total dust (CAS: 1317-65-3)
REL (Inhalation): 10 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

19. Marble, Respirable fraction (CAS: 1317-65-3)
PEL (Inhalation): 5 mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

20. Marble, Respirable fraction (CAS: 1317-65-3)
PEL (Inhalation): 5 mg/m3 (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

21. Marble, Respirable fraction (CAS: 1317-65-3)
REL (Inhalation): 5 mg/m3 (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

Appropriate engineering controls: Processing may form hazardous compounds (see section 10). Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

Individual protection measures

Eye/face protection: Wear the following personal protective equipment: Safety glasses

Skin protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc). Hygiene measures: Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

Body protection: Impervious gloves. Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

SECTION 9
Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance/form:	Paste
Odor:	Slight
Odor Threshold:	No data available.

Ph:	Not applicable
Melting Point/Freezing Point:	No data available.
Initial Boiling Point and Boiling Range:	Not applicable
Flash Point:	Not applicable
Evaporation Rate:	Not applicable.
Flammability (Solid, Gas):	Not classified as a flammability hazard
Lower And Upper Explosive (Flammable) Limits:	No data available.
Vapor Pressure:	Not applicable.
Vapor Density:	No data available.
Relative Density:	1.41
Solubility (ies):	No data available.
Partition Coefficient: N-Octanol/Water:	No data available.
Auto-Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	Not applicable.
Explosive properties	Not explosive.
Oxidizing properties	The substance or mixture is not classified as oxidizing.

SECTION 10
Stability and Reactivity

Reactivity:	Not classified as a reactivity hazard.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Hazardous decomposition products will be formed upon contact with water or humid air. Hazardous decomposition products will be formed at elevated temperatures.
Conditions To Avoid:	Exposure to moisture.
Incompatible Materials:	Oxidizing agents. Water.
Hazardous Decomposition Products:	Contact with water or humid air: Ethyl methyl ketoxime Thermal decomposition : Formaldehyde

SECTION 11
Toxicological Information

Information on Toxicological Effects

Acute Toxicity: Not classified based on available information.

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Ingredients:
Calcium carbonate:
Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 420
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 3 mg/l
Exposure time: 4 h

Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal 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

Methyltri(ethylmethylketoxime)silane:
Acute oral toxicity : LD50 (Rat): > 2,520 mg/kg
Assessment: The substance or mixture has no acute oral 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: Not classified based on available information.

Serious eye damage/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.
Carcinogenicity:	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 (Blood) through prolonged or repeated exposure if swallowed. Methyltri(ethylmethylketoxime)silane: Routes of exposure: Ingestion Target Organs: Blood Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw. Vinyltri (methylethylketoxime) silane: Routes of exposure: Ingestion Target Organs: Blood Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.
Aspiration Hazard:	Not classified based on available information.
Additional information	Information on likely routes of exposure Skin contact Ingestion Eye contact Product: Remarks: During use of the material, small amounts of methylethylketoxime (MEKO) will be released. Rodents exposed to chronic MEKO inhalation throughout their lifetimes showed significant increases in liver tumor rates.

SECTION 12
Ecological Information

Toxicity
Calcium carbonate:
Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Toxicity to algae : ErC50 (Desmodesmus subspicatus (green algae)): > 14 mg/l

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
Methyltri(ethylmethylketoxime)silane:
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 14.5 %
Exposure time: 21 d
Method: OECD Test Guideline 302B
Remarks: Based on data from similar materials
3-Aminopropyltriethyoxysilane:
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 39 %
Method: OECD Test Guideline 301A
Stability in water : Degradation half life: 0.025 h (24.7 °C) pH: 7
Method: OECD Test Guideline 111

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

Bioaccumulative potential
Methyltri(ethylmethylketoxime)silane:
Partition coefficient: noctanol/water: log Pow: 11.2

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

Mobility in soil
No data available

Results of PBT and vPvB assessment
No data available

Other adverse effects
No data available

SECTION 13
Disposal Considerations

Disposal of the product:	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

New Jersey Right To Know Components
Common name: CALCIUM CARBONATE
CAS number: 1317-65-3

Pennsylvania Right To Know Components
Chemical name: Limestone
CAS number: 1317-65-3

Chemical name: Silica

CAS number: 7631-86-9

Chemical Safety Assessment
California Prop 65 WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm. Methanol 67-56-1

The ingredients of this product are reported in the following inventories:
KECI : All ingredients listed, exempt or notified.
REACH : All ingredients (pre-)registered or exempt.
TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
AICS : All ingredients listed or exempt.

IECSC : All ingredients listed or exempt.
PICCS : All ingredients listed or exempt.
DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the
Canadian Domestic Substances List (DSL).

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

HMIS Rating

Health	2
Flammability	1
Physical hazard	0
Personal protection	

NFPA Rating

Health hazard	2
Fire hazard	1
Reactivity hazard	0
Special hazard	

SECTION 16
Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

ABBREVIATIONS:

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