

MATERIAL SAFETY
DATA SHEET

Product Name: Work Zone Silicone ADV Sealant - Clear, white, gray, almond, dark brown/bronze, black.
Product Code: Series 032

Section I - Company Information

Date Prepared: January 1, 2015

Company:	ICB Products 75 Chambers Drive, Unit 9 Ajax, Ontario, L1Z 1E1 Canada	Information Tel. No. (905) 619-0115 Emergency Tel. No. (905) 619-0115
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Generic Description:	Silicone elastomer.
WHMIS Classification:	Class D, Division 2, Subdivision A. Class D, Division 2, Subdivision B.
Material usage:	Sealant and Adhesive.

Section II - Hazardous Chemical Ingredients/Identity Information

<u>Ingredient</u>	<u>%</u>	<u>CAS#</u>	<u>Exposure Limits</u>
Silica, Amorphous inhalable	10-30	007631869	Observe particulate limits. OSHA PEL: TWA 15 mg/m ³ total dust, 5 mg/m ³ respirable fraction. ACGIH TLV: TWA 10 mg/m ³ particulate, 3 mg/m ³ respirable particulate. LC50: Not Available. LD50: 3160 mg/kg Oral Rat.
Methyltri-(ethylmethylketoxime)-silane	3-7	022984549	See ethyl methyl ketoxime comments. LC50: >50 mg/L inhalation rat; four hour exposure. LD50: >1000 mg/kg oral rat.
Di(ethylmethyl ketoxime)-methoxymethylsilane Not	1-5	083817725	See ethyl methyl ketoxime and methyl alcohol comments. LC50: available. LD50: Not available.
Ethoxytri(ethylmethylketoxime)silane	0.5-1.5	101371000	See ethyl alcohol and ethyl methyl ketoxime comments. LC50: Not available. LD50: Not available.
Diethoxydi(ethylmethylketoxime)silane	0.1-1.0	093917750	See ethyl alcohol and ethyl methyl ketoxime comments. LC50: Not available. LD50: Not available.
Methylethyl-ketoxime	0.1-1.0	000096297	Vendor guide: TWA 3 ppm, STEL 10 ppm. AIHA WEEL: TWA 10 ppm. LC50: Not available. LD50: 930 mg/kg Oral rat.
Tetra(Methylethylketoxime)silane	0.1-1.0	034206401	See ethyl methyl ketoxime comments. LC50: Not available. LD50: Not available.
Triethoxy(Ethylmethylketoxime)silane	0.1-1.0	101371011	See ethyl alcohol and ethyl methyl ketoxime comments. LC50: Not available. LD50: Not available.
Octamethylcyclotetrasiloxane	0.1-1.0	000556672	Vendor guide: TWA 10 ppm. See section comments. LC50: Not available. LC50 Not available.

Comments: Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 200 ppm and ACGIH TLV-skin: TWA 200 ppm, STEL 250 ppm. Ethyl methyl ketoxime is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within the following exposure guidelines: Vendor guide TWA: 3 ppm, STEL: 10 ppm; AIHA WEEL TWA: 10 ppm. Ethyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL and ACGIH TLV: TWA 1000 ppm.

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Section III - Hazards Identification

EMERGENCY OVERVIEW

Colourless or coloured paste. Some odour. Water, moisture, or humid air can cause hazardous vapours to form as described in Section 2. Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 200 ppm and ACGIH TLV-skin: TWA 200 ppm, STEL 250 ppm. Ethyl methyl ketoxime is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within the following exposure guidelines: Vendor guide TWA: 3 ppm, STEL: 10 ppm; AIHA WEEL TWA: 10 ppm. Ethyl alcohol is formed upon contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL and ACGIH TLV: TWA 1000 ppm.

POTENTIAL HEALTH EFFECTS
Acute Effects

Eye: Direct contact may cause mild irritation.
 Skin: May cause moderate irritation.
 Inhalation:
 Oral:

Prolonged / Repeated Exposure Effects

Skin: Products contain oximes which are possible skin sensitizers.
 Inhalation: Vapour overexposure may cause drowsiness, injure blood, liver and may irritate eyes, nose and throat.
 Oral: Repeated ingestion or swallowing or swallowing large amounts may injure internally.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

Comments:

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data, and/or expert review of the product. Please refer to Section 11 for detailed toxicology information.

Section IV - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
 Skin: Remove from skin and immediately flush with water for 15 minutes. Get medical attention if irritation or other ill effects develop or persist.
 Oral: Get medical attention.
 Inhalation: Remove to fresh air. Get medical attention if ill effects persist.
 Comments: Treat according to person's condition and specifics of exposure.

Section V - Fire and Explosion Hazard Data

Flash Point: Not applicable - solid.
 Flammability Limits in Air: Lower: Not determined. Higher: Not determined.
 Autoignition Temperature: Not determined.

Section V - Fire and Explosion Hazard Data, continued

Extinguishing Media:	On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO ₂), dry chemical or water spray. Water can be used to cool fire exposed containers.
Fire Fighting Procedures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.
Unusual Fire and Explosion Hazards:	Not available.
Hazardous Decomposition Products:	Metal oxides. Carbon oxides and traces of incompletely burned carbon compounds. Nitrogen oxides. Silicon dioxide. Formaldehyde.

Section VI - Accidental Release Measures

Containment / clean-up: Observe all personal protection equipment recommendations described in sections 5 and 8. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since some silicone materials, even in small quantities, may present a slid hazard. Final cleaning may require use of steam, solvents or detergents. Local, provincial, and federal laws and 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 federal, provincial, and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills.

Section VII - Handling and Storage

Use with adequate ventilation. Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control MEKO within exposure guidelines (See Section 2) or use respiratory protection. Product evolves methyl alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within exposure guidelines (See Section 2) or use air-supplied or self-contained breathing apparatus. Product evolves ethanol on exposure to water or humid air. Provide ventilation during use to control methanol within exposure guidelines (see section 2) or use respiratory protection. Avoid breathing vapour. Keep container closed. Avoid eye contact. Do not take internally. Avoid skin contact.

Keep container closed and store away from water or moisture.

Section VIII - Exposure Controls / Personal Protection

Engineering Controls

Local exhaust: Recommended.
 General ventilation: Recommended.

Personal Protective Equipment For Routine Handling

Eye: Use proper protection - safety glasses as a minimum.
 Skin: Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.
 Suitable Gloves: Silver Shield® 4H® Butyl Rubber. Natural Rubber. Neophene Rubber®. Nitrile Rubber.
 Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines. Industrial hygiene personnel can assist in judging the adequacy of existing engineering controls.

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Suitable Respirator: Self-contained breathing apparatus (SCBA) or other supplied-air respirator.

Section VIII - Exposure Controls / Personal Protection, continued

Personal Protective Equipment For Spills

Eye: Use full face respirator.
 Skin: Wash at mealtime and end of shift. If skin contact occurs, change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.
 Suitable Gloves: No special protection needed.
 Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines. Industrial hygiene personnel can assist in judging the adequacy of existing engineering controls.
 Suitable Respirator: Self-contained breathing apparatus (SCBA) or other supplied-air respirator..

Precautionary Measures: Avoid eye contact. Avoid skin contact. Avoid breathing vapour. Keep container closed. Do not take internally.

Comments: Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control MEKO within exposure guidelines (See Section 2) or use respiratory protection. Product evolves methyl alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within exposure guidelines (See Section 2) or use air-supplied or self-contained breathing apparatus. Product evolves ethanol on exposure to water or humid air. Provide ventilation during use to control methanol within exposure guidelines (see section 2) or use respiratory protection.

Note: These precautions are for room temperature handling. Use at elevated temperature, or aerosol/spray applications, may require added precautions.

Section IX - Physical and Chemical Properties

Physical form:	Paste.	Colour:	Colourless, white, gray, almond, dark brown/bronze, black, or blue
Odour:	Some odour.	Specific gravity @ 25C:	1.04
Viscosity:	Not applicable.	Freezing/Melting point:	Not determined.
Boiling point:	Not applicable.	Vapour pressure @ 25C:	Not applicable.
Vapour density:	Not applicable.	Solubility in water:	Not determined.
pH:	Not applicable.	Volatile content(Wt%):	Not applicable.
Odour threshold:	Not available.	Coefficient water/oil distribution:	Not available.
Evaporation rate:	Not applicable.		

Note: The above information is not intended for use in preparing product specifications. Contact vendor before writing specifications.

Section X - Stability and Reactivity Data

Chemical Stability:	Stable.
Hazardous Polymerization:	Hazardous polymerization will not occur.
Conditions to Avoid:	None.
Materials to avoid:	Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous vapours to form as described in Section 2.

Section XI - Toxicological Information

Acute Toxicology Data For Product

Complete information not yet available.

Component Toxicology Information

Methyl Ethyl Ketoxime (MEKO) is formed upon contact with water or humid air. Male rodents exposed to MEKO vapour throughout their lifetime developed liver cancer. Additional testing is planned by the MEKO supplier to determine any relevance to humans. Until more data is known, exposure levels should be maintained as low as achievable.

Repeated inhalation or oral exposure of mice and rats to octamethylcyclotetrasiloxane and decamethylcyclopentasiloxane produced an increase in liver size. No gross histopathological or significant clinical chemistry effects were observed. An increase in liver metabolizing enzymes, as well as a transient increase in the number of normal cells (hyperplasia) followed by an increase in cell size (hypertrophy) were determined to be the underlying causes of the liver enlargement. The biochemical mechanisms producing these effects are highly sensitive in rodents, while similar mechanisms in humans are insensitive. Good industrial hygiene practice minimizes inhalation exposure to any chemical. Vendor has set an exposure guideline of 10 ppm TWA for these two materials.

In developmental toxicity studies in which rats and rabbits were exposed to octamethylcyclotetrasiloxane administered to rats by whole body inhalation at concentrations of 500 and 700 ppm for 70 days prior to mating, through mating, gestation and lactation resulted in decreases in live litter size. Additionally, increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia) were observed at these concentrations. Statistically significant alterations in these parameters were not observed in the lower concentrations evaluated (300 and 70 ppm). In a previous range finding study, rats exposed to vapour concentrations of 700 ppm had decreases in the number of implantation sites and live litter size. The significance of these findings to humans is not known.

Special Hazard Information On Components

Reproductive Effects

000556672	0.1-1.0	Octamethylcyclotetrasiloxane	Causes reproductive effects in laboratory animals.
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Sensitizers

022984549	3-7	Methyltri-(ethylmethylketoxime)-silane	Possible skin sensitizer
083817725	1-5	Di(ethylmethyl ketoxime)-methoxymethylsilane	Possible skin sensitizer
101371000	0.5-1.5	Ethoxytri(ethylmethylketoxime)silane	Possible skin sensitizer
093917750	0.1-1.0	Diethoxydi(ethylmethylketoxime)silane	Possible skin sensitizer
000096297	0.1-1.0	Methylethyl-ketoxime	Possible skin sensitizer
034206401	0.1-1.0	Tetra(Methylethylketoxime)silane	Possible skin sensitizer
101371011	0.1-1.0	Triethoxy(Ethylmethylketoxime)silane	Possible skin sensitizer

Section XII - Ecological Information

Environmental Fate and Distribution

No specific information is available.

Ecotoxicity

No specific information is available.

Persistence and Degradation

No specific information is available.

Section XIII - Disposal Considerations

Can be either landfilled or incinerated in accordance with local regulations. Landfilling of large quantities may not be appropriate, check with local disposal authorities first.

Section XIV - Transport Information

Shipping Name: Not applicable.
Primary Class: Not applicable.
Subsidiary Risk: Not assessed.
Product Identification Number: Not applicable.
Packing Group: Not applicable.

Section XV - Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS Classification: Class D, Division 2, Subdivision A. Class D, Division 2, Subdivision B.

Section XVI - Other Information

These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.