Novagard *Solutions*™
MATERIAL SAFETY DATA SHEET

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: M400 (White)
M410 (Black)
M418 (Grey)

GENERIC DESCRIPTION: Silicone Elastomers

MANUFACTURED BY: **Novagard** *Solutions*™
5109 Hamilton Avenue
Cleveland, OH 44114 216-881-8111
www.Novagard.com

EMERGENCY PHONE NUMBER: CHEMTREC 800-424-9300 (24 hour)

REVISED: 06-29-09 **PREPARED BY**: Brian Chambers

SECTION 2 - HAZARDOUS COMPONENTS

COMPONENT	CAS No.	WT %	OSHA-PEL		ACGIH-TLV	
			TWA	STEL	TWA	STEL
Silica, amorphous	68611-44-9	0-15	10 mg/m^3	NE	10 mg/m^3	NE
Vinyl Oximino Silane	2224-33-1	0-4		None		None
?-Aminopropyltriethoxysilane	919-30-2	0-2		None		None

Comments:
Alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within guidelines of OSHA PEL: TWA 1000 ppm and ACGIH TLV- skin: TWA 1000 ppm, STEL 1000 ppm.

Methyl ethyl ketoxime is formed upon contact with water or humid air. Provide adequate ventilation to control exposures to within the exposure guideline of 3 ppm (TWA).

SECTION 3 - EFFECTS OF OVEREXPOSURE

Acute Effects

Eye: Direct contact irritates slightly with redness and swelling
Skin: Repeated or prolonged contact may cause defatting of the skin leading to dermatitis. Product contains oximes which are possible skin sensitizers
Inhalation: Vapor overexposure may cause drowsiness, injure blood, liver and may irritate eyes, nose and throat.
Oral: Small amounts transferred to the mouth by fingers during use etc. should not injure. Swallowing large amounts may injure.

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SECTION 3 - EFFECTS OF OVEREXPOSURE (continued)

Repeated Exposure Effects

Skin: None known
Inhalation: Vapor overexposure may cause drowsiness, injure blood, liver and may irritate eyes, nose and throat.
Oral: Small amounts transferred to the mouth by fingers during use etc. should not injure. Swallowing large amounts may injure.

Special Hazards

Carcinogens: This product does not contain any ingredients listed by IARC, NTP or OSHA as chemical carcinogens.
Teratogens: None known
Mutagens: None known
Reproductive Toxins: None known

SECTION 4 - FIRST AID MEASURES

Eyes: Flush with water for 15 minutes.
Skin: Wipe off and flush with water. Get medical attention if a reaction develops.
Inhalation: Remove to fresh air. Get medical attention if a reaction develops.
Oral: Get immediate medical attention if large amounts are swallowed.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: Not Applicable - solid
Flammability Limits in Air: Upper - Not Determined Lower - Not Determined
Extinguishing Media: Water, CO_2 ,Dry Chemical, Foam.
Special Fire Fighting Procedures: None known

This product contains Methylpolysiloxanes which can generate formaldehyde at approximately 300° F and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Disposal of collected product, residues and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Scrape up and contain for salvage or disposal. Wash all walking surfaces with detergent and water to reduce slipping hazard. Observe all personal and protection equipment recommendations described in Section 5 and 8. Local, state and federal reporting requirements may apply to spills or releases of this matter into the environment. See applicable regulatory compliance information in Section 15.

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SECTION 7 - HANDLING AND STORAGE

Handling: No special precautions
Storage : Keep container closed and store away from water or moisture.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Local exhaust: Recommended General ventilation: Recommended Eyewash stations: Recommended

Personal Protective Equipment for Routine Handling

Eye Protection: Use proper protection - safety glasses as a minimum
Skin Protection: Wash after any contact. Chemical protective gloves are recommended
Respiratory Protection: Not required for properly ventilated areas. If high levels of vapor or mist should accumulate, use NIOSH approved respirator with organic vapor cartridge

Personal Protective Equipment for Spills

Eye Protection: Avoid eye contact. Use proper protection - safety glasses as a minimum
Skin Protection: Avoid skin contact. Wash after any contact. Chemical protective gloves are recommended
Respiratory Protection: Not required for properly ventilated areas. If high levels of vapor or mist should accumulate, use NIOSH approved respirator with organic vapor cartridge

Comments:
Product evolves methyl ethyl ketoxime (MEKO) when exposed to water or humid air. Provide ventilation during use to control exposure within guidelines (see Section 2) or use respiratory protection. Product evolves alcohol when exposed to water or humid air. Provide ventilation during use to control exposure within Section 2 guidelines. Respiratory protection should be considered for exposures resulting from unusual tasks and/or use in non ventilated areas.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical form	Paste	**Odor:**	Slight smell
Specific Gravity @25? C:	1.25	**Boiling Point (@ 760 mm Hg)**	Not applicable
Freezing/melting point	Not applicable	**Vapor pressure:**	Not applicable
Evaporation rate:	Not applicable	**Volatile content:**	Not applicable
Odor threshold	1.0 ppm (acetic)	**Percent Volatile by volume:**	<8.0
VOC (EPA method 24):	31 gm/l	**Evaporation Rate**	
Solubility in water:	< 1%	**(butyl acetate =1):**	<1.0
Solubility in organic solvent:	Toluene		

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SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable
Hazardous polymerization:	Will not occur
Conditions to avoid:	None known
Materials to avoid:	None known
Conditions to avoid:	None known
Hazardous thermal decomposition and combustion by-products:	Carbon monoxide, carbon dioxide, silicon dioxide, and formaldehyde

SECTION 11 - TOXICOLOGICAL INFORMATION

Methyl ethyl ketoxime produced during cure is toxic. Direct contact with the uncurred product may cause irritation of the eyes, nose and throat if contact is repeated or prolonged.

This product and its components are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

SECTION 12 - ECOLOGICAL INFORMATION

Material will react with water, releasing MEKO which has been determined to be biodegradable and has a static 96 hour LC50 of 48 mg/L (bluegill) and a 48 hour EC50 of 750 mg/L (daphnia)

SECTION 13 - DISPOSAL CONSIDERATIONS

Unused product is not a RCRA hazardous waste if discarded. Disposal must comply with Federal, State and Local disposal or discharge laws.

The information offered here is for the product as shipped. Use and /or alteration to the product such as mixing with other material may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

SECTION 14 - TRANSPORTATION INFORMATION

DOT shipping name:	None	DOT hazard class :	None
DOT labels:	None	UN/NA number:	None
Placards:	None	IATA:	None
IMO IMDG -code:	None		

European Class:

RID (OCTI):	None
ADR (ECE):	None
RAR(IATA):	None

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SECTION 15 - REGULATORY INFORMATION

TSCA Status:

All chemical substances found in this product comply with the Toxic Substances Control act Inventory reporting requirements

EPA SARA Title III Chemical Listings:

40 CFR 355 Section 302
Extremely Hazardous Substance List: None found

Section 312 Hazard Class: Acute: Yes
Chronic: Yes
Fire: No
Pressure: No
Reactive : No

40 CFR 372.65 Section 313
Toxic Chemical List: None

WHMIS Hazard class:

D2B Toxic materials

Hazard Rating System:

HMIS: Flammability 0, Reactivity 0, Health 2
NFAPA: Flammability 0, Reactivity 0, Health 2

California Proposition 65: None

The information presented in this Material Safety Data Sheet relates only to the specific product designated herein, and no warranty, or guarantee, either expressed or implied is made regarding the performance and conditions of this product. This information is based upon information that Novagard believes to be true and accurate; however, it is the responsibility of each user to review this information within the specific context of their intended application.