



Factor II Inc. encourages the end user to read this document entirely and understand all sections of this SDS sheet prior to use. There is important information regarding this product. The end user is expected to follow all precautions outlined in this SDS.

**SECTION 1: IDENTIFICATION**

PRODUCT IDENTIFIER

Product Name : Epoxy Surface Coat Kit

Product Code : MM-100 Part 'A'

Intended Use(s) : For professional use only

CONTACT INFORMATION FOR SUPPLIER OF SAFETY DATA SHEET

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EMERGENCY TELEPHONE NUMBERS

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**SECTION 2: HAZARD(S) IDENTIFICATION**

**GHS Classifications**

**Health:**

- Skin Irritation, Category 2
- Serious Eye Damage, Category 1
- Skin Sensitization, Category 1

**Environmental:**

- Chronic Hazards to the Aquatic Environment, Category 2

**GHS Label**



**Signal Word:** Danger!

**Hazard Statements:**

- H315: Causes skin irritation
- H318: Causes serious eye damage
- H317: May cause an allergic skin reaction
- H411: Toxic to aquatic life with long lasting effects

**Precautionary Statements:****Prevention:**

- P261: Avoid breathing dust/fume/gas/mist/vapours/spray
- P264: Wash thoroughly after handling
- P272: Contaminated work clothing should not be allowed out of the workplace
- P280: Wear protective gloves/protective clothing/ eye protection/ face protection
- P273: Avoid release into the environment

**Response:**

- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER/doctor/physician.
- P391: Collect spillage.

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name:	Wt.%	CAS No.
Barium Sulfate	40-70	7727-43-7
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	10-30	1675-54-3
Titanium dioxide (TiO <sub>2</sub> )	3-7	13463-67-7
Oxirane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis-	1-5	2425-79-8

**SECTION 4: FIRST-AID MEASURES**

**Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical advice/attention.

**Skin:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical advice/attention if irritation or rash develops. Wash clothing before reuse.

**Ingestion:** If swallowed call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air, if not breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention.



**Notes to Physician:** Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

## SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing Media:** Water spray, carbon dioxide, dry chemical, or foam.

**Hazardous Combustion Products:** Carbon monoxide, and carbon dioxide.

**Fire Fighting Procedures:** Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire-controlled methods to sewers or waterways.

**Fire Fighting Equipment:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Spill and Leak Procedures:** Evacuate unnecessary personnel from the spill area. Eliminate all Sources of ignition. Ensure adequate ventilation. Use personal protective equipment. Dike and contain spill. Prevent product from entering drains or waterways. Absorb with non-combustible material (such as: sand, earth, diatomaceous earth, or vermiculite) and transfer to a container for disposal according to local/national regulations.

## SECTION 7: HANDLING AND STORAGE

**General Procedures:** Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Avoid breathing vapor over open container. Avoid open container exposure to damp air. Avoid breathing aerosols, mist, and vapor.

**Handling:** Use personal protective equipment as specified in "**Section 8: Exposure Controls/ Personal Protection**". Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**Storage:** Store in a dry and well-ventilated place, away from excessive heat, in original or similar container. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**Storage Temperature:** 65-80 °F (18-27 °C)

**Shelf Life:** 6 months from the date of shipment under recommended storage conditions.



**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
Chemical Name	EXPOSURE LIMITS				
	Type		ppm	mg/m <sup>3</sup>	
Barium sulfate	OSHA PEL	TWA	[1]	15T 5R [1]	
		STEL	-	-	
	ACGIH TLV	TWA	-	10	
		STEL	-	-	
	NIOSH IDLH	TWA	[1]	10T 5R [1]	
		STEL	-	-	
	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	OSHA PEL	TWA	-	-
			STEL	-	-
ACGIH TLV		TWA	-	-	
		STEL	-	-	
NIOSH REL		TWA	-	-	
		STEL	-	-	
Titanium dioxide (TiO2)	OSHA PEL	TWA	[2]	15 [2]	
		STEL	-	-	
	ACGIH TLV	TWA	-	10	
		STEL	-	-	
	NIOSH REL	TWA	-	-	
		STEL	-	-	
Oxirane, 2,2'-[1,4-butane diylbis(oxymethylene)]bis-	OSHA PEL	TWA	-	-	
		STEL	-	-	
	ACGIH TLV	TWA	-	-	
		STEL	-	-	
	NIOSH REL	TWA	-	-	
		STEL	-	-	

**Footnotes:**  
1. T = Total dust, R = Respirable fraction  
2. Total dust

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Personal Protective Equipment**

**Eyes and Face:** Safety goggles or glasses are recommended. Plastic face shields should be used for complete face protection to protect against possible splashing or spraying of material. ANSIZ87.1 or approved equivalent.

**Skin:** Chemical resistant gloves and chemical goggles, face shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin, or clothing. wear nitro or



neoprene gloves. Chemical resistant gloves lined with polyethylene offer maximum protection.

**Respiratory:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH approved) may be necessary for certain applications. Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. Observe OSHA Regulations for respirator use (29 CFR 1910.134).

**Protective Clothing:** Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing', published by ACGIH.

**Work Hygiene Practices:** Contaminated clothing should be changed and washed before reuse. Eating, drinking, and smoking in immediate work area should be prohibited. Wash hands before eating.

**Other Use Precautions:** Facilities storing or using this material should be equipped with an eyewash facility and safety shower. Training is important. Follow all label precautions.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Paste-Like
<b>Odor:</b>	Slight
<b>Color:</b>	White
<b>pH:</b>	No data available
<b>Flash point &amp; Method</b>	>200 °C(392 °F) Pensky-Martens CC
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Boiling Point:</b>	No data available
<b>Solubility in Water:</b>	Insoluble
<b>Specific Gravity:</b>	2.1 (water=1) at 25° C (77° F)
<b>Viscosity:</b>	160,000 centipoise at 25 °C (77 °F)
<b>(VOC):</b>	Nil

**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** Hazardous reactions will not occur under normal transport or storage conditions.

**Stability:** This product is stable under normal ambient conditions of temperature pressure.

**Conditions to Avoid:** No data available.

**Possibility of Hazardous Reactions:** No data available.

**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide.



**Incompatible Materials:** Oxidizing agents.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

Chemical Name	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
Barium sulfate	No data available	No data available	No data available
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	> 5000 mg/kg Rat	> 2000 mg/kg Rabbit	13.04 mg/l Rat (4 h)
Titanium dioxide (TiO <sub>2</sub> )	> 10000 mg/kg Rat	No data available	> 6.82 mg/l Rat (4 h)
Oxirane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis-	1410 mg/kg Rat	> 2150 mg/kg Rabbit	No data available

**Skin Corrosion/Irritation:** Causes skin irritation.

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** May cause sensitization by skin contact.

**Germ Cell Mutagenicity:** No data available.

**Carcinogenicity:**

Chemical Name	IARC Status
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	3
Titanium dioxide (TiO <sub>2</sub> )	2B

**Reproductive Toxicity:** No data available.

**STOT-Single Exposure:** No data available.

**STOT-Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available.

**SECTION 12: ECOLOGICAL INFORMATION**

**Environmental Data:** This product may cause risk of hazardous effects to the environment.

**Ecotoxicological Information:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release into the environment.

**Bioaccumulation/ Accumulation:** No data available.

**Distribution:** No data available.



**Chemical Fate Information:** No data available.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal Method:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its containers must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protections and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

### SECTION 14: TRANSPORT INFORMATION

#### DOT (Department of Transportation)

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. **(See Note)**

**Technical name:** Bisphenol A epoxy resin

**Primary Hazard Class/Division:** 9

**UN/NA Number:** UN3082

**Packing Group:** III

**NAERG:** 171

**Label:** Class 9 (miscellaneous hazardous materials)

**Marine Pollutant #1:** Yes.

**Other shipping information:** Only regulated for bulk vessel shipments, per 49CFR171.4 (c) Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicle, rail car, or aircraft.

#### AIR (ICAO/IATA)

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. **(See Note)**

**Technical name:** Bisphenol A epoxy resin

**Primary Hazard Class/Division:** 9

**UN/NA Number:** UN3082

**Packing Group:** III

**ERG:** 9L

**Label:** Class 9 (miscellaneous hazardous materials)

**Note:** Only regulated for bulk vessel shipments, per 49CFR171.4 (c) Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packaging transported by motor vehicle, rail car, or aircraft.

#### Vessel (IMO/IMDG)

**Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. **(See Note)**

**Technical name:** Bisphenol A epoxy resin

**Primary Hazard Class/Division:** 9

**UN/NA Number:** UN3082



**Packing Group:** III

**EmS:** F-A, S-F

**Marine Pollutant #1:** Yes.

**Label:** Class 9 (miscellaneous hazardous materials)

**SECTION 15: REGULATORY INFORMATION**

**United States**

**SARA Title III (Superfund Amendments and Reauthorization Act)**

**311-312 Health Hazards:** Refer to Section 2 for hazard classification.

**313 Reportable Ingredients:** This product does not contain any substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)**

**CERCLA Regulatory:** This product does not contain any substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

**TSCA (Toxic Substance Control Act)**

**TSCA Regulatory:** This product does not contain any substances subject to TSCA Section 12 (b) export notification.

**TSCA Status:** This product or its components are listed in or exempt from the TSCA inventory requirements.


**Clean Air Act**

Chemical Name	Wt. %	CAS
Epichlorohydrin	-	106-89-8

**Occupational Safety and Health Administration (OSHA)**

**29 CFR1910.119- Process Safety Management of Highly Hazardous**

**Chemicals:** None of the chemicals in this product are considered highly hazardous by OSHA.

**California Prop 65:** **WARNING**  This product can expose you to chemicals including (see table below), which is (are) known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Chemical Name	Wt. %	Listed
Titanium dioxide (TiO2)	3 - 7	● Cancer
Epichlorohydrin	-	● Cancer ● Male Reproductive

**OSHA Hazard Comm. Rule:** The contents of the SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.



**Canada**

**WHMIS (Workplace Hazardous Materials Information System):** This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**Domestic Substance List (Inventory):** All components in this product are listed in or exempted from the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).

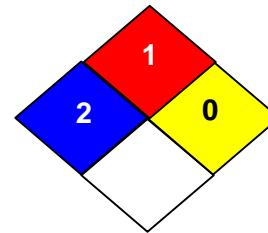
**General Comments:** No data available.

**SECTION 16: OTHER INFORMATION**

**HMIS Rating**

<b>HEALTH</b> *	<b>2</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>PERSONAL PROTECTION</b>	<b>X</b>

**NFPA Codes**



**HMIS Rating Notes:** Personal Protection: See Section 8

**DISCLAIMER / STATEMENT OF LIABILITY:**

*This is to certify that the above designated material has been tested and did comply with the listed specifications (with listed exceptions) when supplied in original container. The material is subject to the conditions listed on the invoice. The above is a copy of information on file. The lot acceptance data are available for examination. This is a computer-generated document that is valid without a signature. The information above is supplied in good faith and, to the best of our knowledge, is based on available sources believed to be reliable and accurate. This document and any information provided herein are for your guidance only. The use by the requestor is beyond Factor II control; therefore, the responsibility for appropriate and safe use of the above information lies with the End user. Factor II shall not be responsible for any misuse and/or misapplication of the information in this document. Factor II will guarantee this product 6-months from the ship date, some restrictions apply.*

*Factor II, Inc. urges each customer or recipient of this SDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology and/or fire prevention as necessary or appropriate to the use and understanding of the data contained in this SDS. To promote safe handling each customer or recipient should 1) notify and furnish its employees, agents, contractors, customers and/or others whom it knows or believes will use this material of the information regarding hazards or safety, and 2) request its customers to notify their employees, customers and other users of the product of this information.*



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## **SECTION 1: IDENTIFICATION**

### PRODUCT IDENTIFIER

Product Name : Epoxy Surface Coat Kit

Product Code : MM-100 Part 'B'

Intended Use(s) : For professional use only

### CONTACT INFORMATION FOR SUPPLIER OF SAFETY DATA SHEET

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[sales@factor2.com](mailto:sales@factor2.com)

### EMERGENCY TELEPHONE NUMBERS

Factor II, Inc – Hazard Phone line: 928- 368-7502  
Chemtrec – (USA & Canada) (800-) 424-9300

## **SECTION 2: HAZARD(S) IDENTIFICATION**

### **GHS Classifications**

#### **Health:**

- Acute Toxicity (Oral), Category 4
- Acute Toxicity (Inhalation), Category 2
- Skin Corrosion, Category 1
- Serious Eye Damage, Category 1
- Skin Sensitization, Category 1
- Reproductive Toxicity, Category 1
- Target Organ Toxicity (Single Exposure), Category 3

#### **Environmental:**

- Chronic Hazards to the Aquatic Environment, Category 2



**GHS Label**



**SINGLE WORD: DANGER**

**Hazard Statements**

- H302: Harmful if swallowed
- H330: Fatal if inhaled
- H314: Causes severe skin burns and eye damage
- H317: May cause an allergic skin reaction
- H360: May damage fertility or the unborn child
- H335: May cause respiratory irritation
- H411: Toxic to aquatic life with long lasting effects

**Precautionary Statements**

**Prevention:**

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood
- P260: Do not breathe dust/fume/gas/mist/vapours/spray
- P271: Use only outdoors or in well-ventilated area
- P284: In case of inadequate ventilation wear respiratory protection
- P264: Wash thoroughly after handling
- P270: Do not eat, drink, or smoke when using product
- P272: Contaminated work clothing should not be allowed out of the workplace
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection
- P273: Avoid release into the environment

**Response:**

- P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- P303+P361+P353: IF ON SKIN: take off immediately all contaminated clothing. rinse skin with water or shower.
- P363: Wash contaminated clothing before reuse
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable breathing
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately POSION CENTER/doctor/physician
- P308+P313: IF exposed or concerned: Get medical advice/attention
- P391: collect spillage

**Storage:**

- P403+P233: Store in well-ventilated place. Keep container tightly closed
- P405: Store locked up

**Disposal:**

- P501: Dispose of content/container in accordance local/regional/national/ international regulations



**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt.%	CAS
Polyamine adduct	30 - 60	Proprietary
1,2-Ethanediamine, N-(2-aminoethyl)-	15 - 40	111-40-0
4,4'-Isopropylidenediphenol	10 - 30	80-05-7

**SECTION 4: FIRST-AID MEASURES**

**Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical advice/attention.

**Skin:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical advice/attention if irritation or rash develops. Wash clothing before reuse.

**Ingestion:** If swallowed call a physician immediately. Do not induce vomiting. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

**Inhalation:** Remove to fresh air, if not breathing. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention.

**Notes to Physician:** Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

**SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing Media:** Water spray, carbon dioxide, dry chemical, or foam.

**Hazardous Combustion Products:** Carbon monoxide, and carbon dioxide, nitrogen oxides, nitric acid, ammonia, aldehydes, nitrosamine, and chlorine.

**Fire Fighting Procedures:** Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire-controlled methods to sewers or waterways.

**Fire Fighting Equipment:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires.



## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Spill and Leak Procedures:** Evacuate unnecessary personnel from the spill area. Eliminate all Sources of ignition. Ensure adequate ventilation. Use personal protective equipment. Dike and contain spill. Prevent product from entering drains or waterways. Absorb with non-combustible material (such as: sand, earth, diatomaceous earth, or vermiculite) and transfer to a container for disposal according to local/national regulations.

### Environmental Precautions

**Water spill:** Do not discharge into drains, surface waters, or groundwater.

**General Procedures:** Refer to Section 8 of SDS for personal protection details.

**Release Notes:** Composition and extent of any spill should be evaluated against local regulations and reported to the proper agencies, if necessary.

## SECTION 7: HANDLING AND STORAGE

**General Procedures:** Avoid contact with eyes, skin and clothing. Use only with adequate Ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosol, mist, and vapors.

**Handling:** Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**Storage:** Store in a dry and well-ventilated place, away from excessive heat, in original or similar container. Avoid unnecessary contact. Protect from freezing. Containers should be sealed to prevent contamination with foreign materials.

**Storage Temperature:** 65-80 °F (18-27 °C)

**Shelf Life:** 6 Months from the date of shipment under recommended storage conditions.



**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Guidelines**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	Type	EXPOSURE LIMITS		
			ppm	mg/m <sup>3</sup>
Polyamine adduct	OSHA PEL	TWA	-	-
		STEL	-	-
	ACGIH TLV	TWA	-	-
		STEL	-	-
	NIOSH REL	TWA	-	-
		STEL	-	-
1,2-Ethanediamine, N-(2-aminoethyl)-	OSHA PEL	TWA	1	4
		STEL	-	-
	ACGIH TLV	TWA	1	-
		STEL	-	-
	NIOSH REL	TWA	1 <sup>(1)</sup>	4 <sup>(1)</sup>
		STEL	-	-
4,4'-Isopropylidenediphenol	OSHA PEL	TWA	-	-
		STEL	-	-
	ACGIH TLV	TWA	-	-
		STEL	-	-
	NIOSH REL	TWA	-	-
		STEL	-	-
<b>Footnotes:</b>				
1. Skin				

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Personal Protective Equipment**

**Eyes and Face:** Safety goggles or glasses are recommended. Plastic face shields should be used for complete face protection to protect against possible splashing or spraying of material. ANSIZ87.1 or approved equivalent.

**Skin:** Chemical resistant gloves and chemical goggles, face shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin, or clothing. wear nitro or neoprene gloves. Chemical resistant gloves lined with polyethylene offer maximum protection.

**Respiratory:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH approved) may be necessary for certain applications.



Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. Observe OSHA Regulations for respirator use (29 CFR 1910.134).

**Protective Clothing:** Protective clothing should be selected and used in accordance with *'Guidelines for the Selection of Chemical Protective Clothing'*, published by ACGIH.

**Work Hygiene Practices:** Contaminated clothing should be changed and washed before reuse. Eating, drinking, and smoking in immediate work area should be prohibited. Wash hands before eating.

**Other Use Precautions:** Facilities storing or using this material should be equipped with an eyewash facility and safety shower. Training is important. Follow all label precautions.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Viscous Liquid
<b>Odor:</b>	Irritating
<b>Color:</b>	Light Yellow
<b>pH:</b>	Alkaline
<b>Flash point &amp; Method</b>	110 °C(230 °F)
<b>Vapor Pressure:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Boiling Point:</b>	No data available
<b>Solubility in Water:</b>	Soluble
<b>Specific Gravity:</b>	1.08 (water=1) at 25° C (77° F)
<b>Viscosity:</b>	3,500 centipoise at 25 °C (77 °F)
<b>(VOC):</b>	Nil

**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity:** Hazardous reactions will not occur under normal transport or storage conditions.

**Stability:** This product is stable under normal ambient conditions of temperature pressure.

**Conditions to Avoid:** No data available.

**Possibility of Hazardous Reactions:** No data available.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, nitrogen oxides, nitric acid, ammonia, aldehydes, nitrosamine, and chlorine.

**Incompatible Materials:** Sodium hypochlorite, organic acids, mineral acids, oxidizing agents, and nitrous acid.



**SECTION 11: TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

Chemical Name	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
Polyamine adduct	No data available	No data available	No data available
1,2-Ethanediamine, N-(2-aminoethyl)-	1080 mg/kg Rat	1090 mg/kg Rabbit	0.3 mg/l Rat (4 h)
4,4'-Isopropylidenediphenol	> 2000 mg/kg Rat	6400 mg/kg Rabbit	170 mg/m <sup>3</sup> Rat (6 h)

**Skin Corrosion/Irritation:** Causes severe skin burns.

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** May cause sensitization by skin contact

**Germ Cell Mutagenicity:** No data available.

**Reproductive Toxicity:** May damage fertility of unborn child.

**STOT-Single Exposure:** May cause respiratory irritation.

**STOT-Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available.

**SECTION 12: ECOLOGICAL INFORMATION**

**Environmental Data:** This product may cause risk of hazardous effects to the environment.

**Ecotoxicological Information:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid release into the environment.

**Bioaccumulation/ Accumulation:** No data available.

**Distribution:** No data available.

**Chemical Fate Information:** No data available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Disposal Method:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its containers must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protections and waste



disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

**SECTION 14: TRANSPORT INFORMATION**

**DOT (Department of Transportation)**

**Proper Shipping Name:** Diethylenetriamine solution

**Primary Hazard Class/Division:** 8

**UN/NA Number:** UN2079

**Packing Group:** II

**NAERG:** 154

**Label:** Corrosive

**AIR (ICAO/IATA)**

**Shipping Name:** Diethylenetriamine solution

**UN/NA Number:** UN2079

**Primary Hazard Class/Division:** 8

**Packing Group:** II

**ERG:** 8L

**Label:** Corrosive

**Vessel (IMO/IMDG)**

**Shipping Name:** Diethylenetriamine solution

**UN/NA Number:** UN2079

**Primary Hazard Class/Division:** 8

**Packing Group:** II

**EmS:** F-A, S-B

**Label:** Corrosive

**SECTION 15: REGULATORY INFORMATION**

**United States:**

**SARA Title III (Superfund Amendments and Reauthorization Act)**

**311/312 Health Hazards:** Refer to Section 2 for hazard classification.

**313 Reportable Ingredients:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

**EPCRA Section 313 Supplier Notification:**

Chemical Name	Wt.%	CAS
4,4'-Isopropylidenediphenol	10 - 30	80-05-7

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)**

**CERCLA Regulatory:** This product does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (40 CFR 302)

**TSCA (Toxic Substance Control Act)**




**TSCA Regulatory:** This product does not contain any substances that are subject to TSCA Section 12(b) export notification.

**TSCA Status:** This product or its components are listed or in exempt from TSCA inventory requirements.

**Occupational Safety and Health Administration (OSHA)**

**29 CFR1910.119---Process Safety Management oh Highly Hazardous**

**Chemicals:** None of the chemicals in this product are considered highly hazardous by OSHA.

**California Proposition 65:** **WARNING** : This product can expose you to chemicals including (see table below), which is (are) known to the State of California to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Chemical Name	Wt.%	Listed
4,4'-Isopropylidenediphenol	10 - 30	• Female Reproductive

**OSHA Hazard Comm. Rule:** The contents of this SDS comply with OSHA Hazard Communication Standard 29 CFR 1910.1200.

**Canada**


**WHMIS (Workplace Hazardous Materials Information System):** This product has been classified according to the Hazard Criteria of the CPR and the SDS contains all the required information by the CPR.

**Domestic Substance List (Inventory):** All components in this product are listed in or exempted from the Domestic Substances List (DSL) or the Non-Domestic Substance List (NDSL).

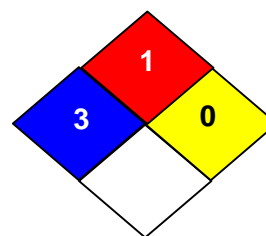
**General Comments:** No data available.

**SECTION 16: OTHER INFORMATION**

**HMIS Rating**

<b>HEALTH</b> 	<b>3</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>PERSONAL PROTECTION</b>	<b>X</b>

**NFPA Codes**



**HMIS Rating Notes:** Personal Protection: See Section 8.



**SECTION 1: IDENTIFICATION**

PRODUCT IDENTIFIER

Product Name        Silicone Elastomer  
Product Code        A-RTV-4020 C  
Intended Use(s) :    For professional use only

CONTACT INFORMATION FOR SUPPLIER OF SAFETY DATA SHEET

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[sales@factor2.com](mailto:sales@factor2.com)

EMERGENCY TELEPHONE NUMBERS

928- 368-7502

**SECTION 2: HAZARD IDENTIFICATION**

**Hazard Classification**                      Not a hazardous substance or mixture according to GHS.

**Label Elements**

**Hazard Symbol**                                No symbol.  
**Signal Word**                                    No signal word.  
**Hazard Statement**                            Not applicable.

**Precautionary Statements**

**Prevention**                                      Not applicable.  
**Response**                                        Not applicable.  
**Storage**    Not applicable.  
**Disposal**    Not applicable.

**Other hazards which do not result in GHS classification**

Chemical compounds containing silicon - hydrogen bonds (SiH). This product may generate hydrogen gas. For further information, refer to Section 10: "Stability and Reactivity".



**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixtures**

**Composition Comments**

Mixture of Polyorganosiloxanes, fillers.

**SECTION 4: FIRST AID MEASURES**

<b>General information</b>	For further information refer to section 8 "Exposure-controls/ personal protection".
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly. Get medical attention if symptoms occur.
<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin Contact</b>	Wash skin thoroughly with soap and water. Get medical attention if symptoms occur after washing.
<b>Eye contact</b>	In the event of contact with the eyes, rinse thoroughly with clean water for at least 15 minutes. Get medical attention if irritation persists after washing.
<b>Most important symptoms/effects, acute and delayed</b>	
<b>Symptoms</b>	None known.
<b>Hazards</b>	No specific recommendations.
<b>Indication of immediate medical attention and special treatment needed</b>	
<b>Treatment</b>	No specific recommendations.

**SECTION 5: FIRE FIGHTING MEASURES**

<b>General Fire Hazards</b>	Water spray should be used to cool containers.
<b>Suitable (and unsuitable) extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical, alcohol resistant foam or carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire. Do not use alkaline powders.

**Specific hazards arising from the chemical**

Product will burn under fire conditions. This product may generate hydrogen gas. Vapors may form explosive mixtures with air. For further information, refer to Section 10:



"Stability and Reactivity". Hazardous Decomposition Products : formaldehyde, oxides of carbon and silica.

**Special protective equipment and precautions for firefighters**

**Special firefighting procedures**

Water spray should be used to cool containers.

**Special protective equipment for fire-fighters:**

Firefighters should wear standard protective equipment and a positive pressure self-contained breathing apparatus (SCBA).

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

Wear appropriate personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with alkalis and caustic products. Eliminate all sources of ignition.

**Methods and material for containment and cleaning up**

Ventilate the area. Use non-sparking tools. Absorb with sand or other inert absorbent. Avoid contact with bases. Scrape up and place in appropriate vented container.

**Notification Procedures**

Caution: Contaminated surfaces may be slippery. For waste disposal, see Section 13 of the SDS.

**Environmental Precautions**

Do not allow to enter drains, sewers or watercourses.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

Provide adequate ventilation if fumes or vapors are generated. Do not mix with incompatible materials. For further information, refer to Section 10: "Stability and Reactivity". Read and follow manufacturer's recommendations.

**Conditions for safe storage, including any incompatibilities**

Store in original vented container. Store in a cool, dry place with adequate ventilation. Keep away from incompatible materials, open flames, and high temperatures.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control Parameters**

**Occupational Exposure Limits**

None of the components have assigned exposure limits.



**Appropriate Engineering Controls**                      No special precautions.

**Individual protection measures, such as personal protective equipment**

**General information**

Provide sufficient ventilation during operations which cause vapor formation. This product can form formaldehyde vapors when heated to temperatures above 150 degrees C in the presence of air.

**Eye/face protection**                                      Wear approved chemical safety glasses.

**Skin Protection**

**Hand Protection**                                      Protective gloves are recommended.

**Other**    Wear suitable protective clothing.

**Respiratory Protection**

No protection is ordinarily required under normal conditions of use and with adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

**Hygiene measures**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Based on typical material)**

**Information on basic physical and chemical properties**

Appearance	
Physical state	Liquid
Form	Viscous
Color	Colorless
Odor	Slight odor
Odor threshold	No data available.
pH	Not applicable.
Freezing point	No data available.
Boiling Point	No data available.
Flash Point	> 392 °F (200 °C)
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Flammability limit - upper (%)	74 %(V) Hydrogen.
Flammability limit - lower (%)	4 %(V) Hydrogen.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	1.04 (77 °F (25 °C))
Solubility(ies)	
Solubility in water	Insoluble
Solubility (other)	No data available.



Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	932 °F (500 °C) Hydrogen.
Decomposition temperature	No data available.
Viscosity	200 - 600 mm <sup>2</sup> /s (77 °F (25 °C))

**SECTION 10: STABILITY AND REACTIVITY DATA**

<b>Reactivity</b>	No data available.
<b>Chemical Stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	This product may generate hydrogen gas.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources.

**Incompatible Materials**

A fire or explosion hazard arises because highly flammable gas (hydrogen) is released when it is in contact with: Strong oxidizers, strong bases and chemical compounds with mobile hydrogen, in the presence of metal salts and complexes.

**Hazardous Decomposition Products**

This product can form formaldehyde vapors when heated to temperatures above 150 degrees C in the presence of air. Thermal decomposition or combustion may liberate carbon oxides, other toxic gases or vapors and amorphous silica.  
Quantity of hydrogen potentially released (l/kg of product): ~38

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Ingestion</b>	No data available.
<b>Inhalation</b>	No data available.
<b>Skin Contact</b>	No data available.
<b>Eye contact</b>	No data available.

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Ingestion</b>	No data available.
<b>Inhalation</b>	No data available.
<b>Skin Contact</b>	No data available.
<b>Eye contact</b>	No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

<b>Oral Product</b>	ATEmix: 2,500 mg/kg
<b>Dermal Product</b>	No data available.
<b>Inhalation Product</b>	No data available.



<b>Repeated dose toxicity Product</b>	No data available.
<b>Skin Corrosion/Irritation Product</b>	No data available.
<b>Serious Eye Damage/Eye Irritation Product</b>	No data available.
<b>Respiratory or Skin Sensitization Product</b>	No data available.
<b>Carcinogenicity Product</b>	No data available.
<b>IARC Monographs on the Evaluation of Carcinogenic Risks to Humans</b>	
	No carcinogenic components identified
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
	No carcinogenic components identified
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
	No carcinogenic components identified
<b>Germ Cell Mutagenicity</b>	
<b>In vitro Product</b>	No data available.
<b>In vivo Product</b>	No data available.
<b>Reproductive toxicity Product</b>	No data available.
<b>Specific Target Organ Toxicity - Single Exposure Product</b>	No data available.
<b>Specific Target Organ Toxicity - Repeated Exposure Product</b>	No data available.
<b>Aspiration Hazard Product</b>	No data available.
<b>Other effects</b>	No data available.

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish Product** No data available.

**Aquatic Invertebrates Product** No data available.

**Chronic hazards to the aquatic environment**

**Fish Product** No data available.

**Aquatic Invertebrates Product** No data available.



<b>Toxicity to Aquatic Plants Product</b>	No data available.
<b>Persistence and Degradability Biodegradation Product</b>	No data available.
<b>BOD/COD Ratio Product</b>	No data available.
<b>Bioaccumulative potential Bioconcentration Factor (BCF) Product</b>	No data available.
<b>Partition Coefficient n-octanol / water (log Kow) Product</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No data available

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Disposal instructions**

Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Waste of this material should not be mixed with other waste. Provide measures such as vented bungs to ensure pressure relief in the waste container. Contaminated packages should be as empty as possible and equipped with a degassing device.

**SECTION 14: TRANSPORT INFORMATION**

This material is not subject to transport regulations.

**Environmental hazards** Not regulated.

**Special precautions for user** Packaging with a breathing/venting bung are FORBIDDEN for transport by air.

**SECTION 15: REGULATORY INVORMATION**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Acute (Immediate)  Chronic (Delayed)  Fire  Reactive  Pressure Generating

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.



**SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

No ingredient regulated by NJ Right-to-Know Law present.

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

**Inventory Status**

US TSCA Inventory	On or in compliance with the inventory.
Canada DSL Inventory List	On or in compliance with the inventory.
EU EINECS List	On or in compliance with the inventory.
Japan (ENCS) List	On or in compliance with the inventory.
China Inv. Existing Chemical Substances	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI)	On or in compliance with the inventory.
Australia AICS	On or in compliance with the inventory.
Philippines PICCS	On or in compliance with the inventory.
New Zealand Inventory of Chemicals	On or in compliance with the inventory.

**SECTION 16: OTHER INFORAMTION**

**HMIS Hazard ID**  
**Health**

**1 - Slight**



## Factor II, Incorporated

The Art, Science and Technology of  
Silicones and Prosthetics...

## Safety Data Sheet

Product Code: MM-100

Date of Issue: 02/13/2014

Revision Date: 02/13/2020

**Flammability**

**1 - Slight**

**Physical Hazards**

**1 - Slight**

**PERSONAL PROTECTION**

**B – Safety Glasses and gloves**

### **NFPA Hazard ID**

**Flammability**

**1 - Slight**

**Health**

**1 - Slight**

**Reactivity**

**1 - Slight**

**Special Hazard**

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