



Factor II, Incorporated

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

Safety Data Sheet

Product Code A-101 A&B

Date of issue: 07-01-2015

Revision Date: 05-05-2019

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIER

Product Name Silicone Elastomer

Product Code A -101 A

Intended Use(s) : For professional use only

CONTACT INFORMATION FOR SUPPLIER OF SAFETY DATA SHEET

Factor II, Incorporated
5642 White Mountain Ave
PO Box 1339
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928-537-8387
www.factor2.com
sales@factor2.com

EMERGENCY TELEPHONE NUMBERS

928- 368-7502

SECTION 2: HAZARD(S) IDENTIFICATION

EFFECTS OF SINGLE OVEREXPOSURE

SWALLOWING

Small amounts transferred to the mouth by fingers during use, etc., should not injure. Swallowing large amounts may cause digestive discomfort.

SKIN ABSORPTION

No evidence of adverse effects from available information.

INHALATION

Short term harmful health effects are not expected from vapor generated at ambient temperature.

SKIN CONTACT

May cause skin irritation and reddening.

EYE CONTACT

Direct contact may cause temporary discomfort with mild redness, swelling and irritation.

EFFECTS OF REPEATED OVEREXPOSURE

No injury from silica or dust should occur during reasonable use. If use creates respirable particles, some respiratory system injury may occur. However, since the silica in this product is compounded into the polymer matrix, it is not expected to present the same hazards as neat silica.



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MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION

Diatomaceous earth may contain up to 75% crystalline silica, which is classified by the IARC as a class 2A carcinogen (probably carcinogenic to humans: limited human evidence sufficient evidence in experimental animals); and by the NTP as a class 2 carcinogen (reasonable anticipated to be a carcinogen: limited evidence from studies in humans or sufficient evidence from studies in experimental animals).

The EPA has expressed concern regarding the possible adverse health effects resulting from the inhalation of alkoxysilanes and has recommended that administrative and mechanical means be used to minimize exposures.

n-Propanol (which is generated upon exposure to water and or moisture) has been demonstrated to be carcinogenic in lifetime exposure studies in rats when administered orally or subcutaneously.

OTHER EFFECTS OF OVEREXPOSURE

None currently known.

SECTION 3: HAZARDOUS INGREDIENTS

%	MATERIAL	CAS#	EXPOSURE VALUE	CLASSIFICATION
25	Calcined diatomaceous earth	68855-54-9	See Section 8	See Section 7
<2	Tetra-n-propyl silicate	00682-01-9	See Section 8	See Section 7

SECTION 4: FIRST-AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES

SWALLOWING

If several ounces or more has been swallowed, and if patient is fully conscious, give two glasses of water and obtain medical attention.

SKIN

Wash with soap and water.

INHALATION

Short-term harmful health effects are not expected from vapor generated at ambient temperature. Obtain medical attention if discomfort persists.

EYES

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention if discomfort persists.



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NOTES TO PHYSICIAN

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT (test method(s)) >275°F (Cleveland Open Cup)

FLAMMABLE LIMITS IN AIR (by volume)

LOWER	N/A
UPPER	N/A

EXTINGUISHING MEDIA

Apply alcohol-type or universal-type foams by manufacturers' recommended techniques for large fires. Use water spray, carbon dioxide, or dry chemical media for small fires.

SPECIAL FIRE FIGHTING PROCEDURES

Do not direct a solid stream of water or foam directly into a pool of hot, burning liquid as this may cause frothing, and may intensify the fire. Use self-contained breathing apparatus when fighting fire in an enclosed area.

UNUSUAL FIRE AND EXPLOSION HAZARDS

This product contains polydimethylsiloxane which can generate formaldehyde as a byproduct of oxidative thermal decomposition at temperatures greater than 150°C (300°F). See Section 10 for further information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal.

WASTE DISPOSAL METHOD

Dispose of in accordance with all Federal, State, and local regulations.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Normal precautions common to safe manufacturing practice should be followed in handling and storage.

Store below 90°F

Keep container closed, in a cool dry place

Avoid contact with skin and eyes

Health risk from prolonged exposure

S3/S7/S8

S24/S25

R40



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Contact with water or moisture can generate potentially explosive concentrations of n-Propanol. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE VALUES AND SOURCE

Calcined diatomaceous earth, observe values for Cristobolite

0.1 ppm-8 hours TWA (ACGIH,)

0.1-8 hours TWA (respirable dust) (OSHA, NIOSH)

Tetra-n-propyl silicate, observe values for n-Propyl Alcohol, formed on exposure to water or humid air:

200 ppm-8 hours TWA (skin) ACGIH, OSHA, NIOSH

250 ppm- STEL/CEIL (skin) ACGIH, OSHA, NIOSH

RESPIRATORY PROTECTION

Use NIOSH approved respirator or self-contained breathing apparatus as needed to maintain personal exposure below established Occupational Exposure Values.

VENTILATION

General (mechanical) room ventilation with local ventilation as needed to maintain exposure below established Occupational Exposure Values.

PROTECTIVE GLOVES

PVC-coated.

EYE PROTECTION

Use safety goggles.

OTHER PROTECTIVE EQUIPMENT:

Eye bath and safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT	N/A
SPECIFIC GRAVITY (H ₂ O=1)	1.10
FREEZING POINT	N/A
VAPOR PRESSURE	N/A
VAPOR DENSITY (air=1)	N/A
EVAPORATION RATE (Butyl Acetate=1)	N/A
SOLUBILITY IN WATER (By wt)	Insoluble
APPEARANCE	Gray
ODOR	Slight Odor
PHYSICAL STATE	Liquid
PERCENT VOLATILES (by wt)	See Section 15

Note: The above information is not intended for use in preparing product specifications



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SECTION 10: STABILITY AND REACTIVITY

STABILITY	Stable.
CONDITIONS TO AVOID	Contact with water or moist/humid air.
INCOMPATIBILITY	Oxidizing materials can cause a reaction. Avoid contact with bases. May evolve H ₂ gas when exposed to bases.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

Burning can produce carbon monoxide, carbon dioxide, oxides of silicon, and hydrocarbons. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Traces of formaldehyde may be generated due to oxidative thermal decomposition at temperatures greater than 150°C (300°F). Exposure to formaldehyde can cause adverse effects such as skin and respiratory sensitization and eye and throat irritation.

Formaldehyde is a potential carcinogen. Evaluate and control exposure to formaldehyde when warranted by conditions of use.

HAZARDOUS POLYMERIZATION	Will not occur.
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SECTION 11: TOXICOLOGICAL INFORMATION

COMPONENT

Acute Oral LD ₅₀ (mg/kg)	500-5000 (Rat) Inferred from ingredient hazard(s)
Acute Dermal LD ₅₀ (mg/kg)	1000-2000 (Rbt.) Inferred from ingredient hazard(s)
Acute Inhalation LC ₅₀ (mg/l)	2-20 (Rat) Inferred from ingredient hazard(s)
Other:	N/A.
Ames Test:	N/A.

Refer to Section 3 for further discussion of the health hazards associated with this preparation.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Complete information not yet available.

CHEMICAL FATE INFORMATION: Complete information not yet available.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all Federal, State, and local regulations.



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SECTION 14: TRANSPORT INFORMATION

I.A.T.A. HAZARD CLASSIFICATION

None (not regulated).

SECTION 15: REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS

The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations. Trade Secrets are indicated by "TS".

C H I P REGULATIONS

Chemicals (Hazards Information and Packaging) Regulations 1993 requires physical-chemical and health hazard determination of all substances and preparations manufactured, transported, stored, modified, or consumed within the EEC. Components present in this product at a level, which could require reporting under the statute, are:

*n-Propyl Alcohol 0071-23-8 Trace Amount

FEDERAL EPA

Comprehensive Environmental Response Compensation and Liability Act of 1980

(CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at a level, which could require reporting under the statute are:

****NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires

emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40 CFR 355 (used for SARA 302, 304, 3~ 1, and 312). Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires

submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 3 ~ 3). This information must be included in all MSD S's that are copied and distributed for this material. Components present in this product at a level which could require reporting under this statute are:

*** NONE ****

STATE-RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.



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MASSACHUSETTS 105 CMR 670.000 Right-To-Know, Substance List (MSL)

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level which could require reporting under the statute are:

Diatomaceous earth	68855-54-9	25%
*n-Propyl Alcohol	00071-23-8	Trace amount

PENNSYLVANIA Right-To-Know, Hazardous Substance List

Hazardous Substances and Special Hazardous Substances on the List must be identified when present in products. Components present in this product at a level which could require reporting under the statute are:

Diatomaceous earth	68855-54-9	25%
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CALIFORNIA SCAQMD RULE 443.1 VOC'S

Volatile Organic Components (VOC's) = Substances with vapor pressure of > 0.5 mm Hg at 140°C (219.2°F).

This product contains < 1 % by weight VOC's.

OTHER REGULATORY INFORMATION

EPA Hazard Categories

Delayed Health Hazard

Immediate Health Hazard

C.H.I.P. Regulations

Designation	A-101 A
Symbol	Xn
Indication of Danger	Carcinogen
Safety Phrases	S3/S7/S 8/S24/S25/
(Ref. Sect. 7)	R40

SECTION 16: OTHER INFORMATION

HMIS FORMAT:

Health	1*C
Flammability	1
Reactivity	0

DISCLAIMER / STATEMENT OF LIABILITY:

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.



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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 Catalyst

Product Code A -101 B

Intended Use(s) : For professional use only

CONTACT INFORMATION FOR SUPPLIER OF SAFETY DATA SHEET

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SECTION 2: HAZARDOUS INGREDIENTS

COMPONENT NAME	CAS # 1	TYPICAL WT %	OSHA Hazard
Stannous octoate	301-10-0	Y >97	
2Ethylheoic acid	49.57-5	Y 3	

These substances is identified as hazardous chemicals according to the criteria of the OSHA Communication Standard (29CFR 1910.1200).

SECTION 3: PHYSICAL DATA

BOILING POINT	Not established
SPECIFIC GRAVITY	1.25
VAPOR PRESSURE /VAPOR DENSITY	Not est.
MELTING POINT/FREEZING POINT	< 113 deg F
EVAPORATION RATE	N/app.
SOLUBILITY IN WATER	Insoluble
APPEARANCE and Odor	Colorless to pale yellow liquid with a characteristic odor.
PERCENT VOLATILES	Not established.



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SECTION 4: FIRST-AID AND EXPLOSION INFORMATION

FLASH POINT: (Test Method)	>287°F
FLAMMABLE LIMITS IN AIR, % VOLUME	Not measured
EXTINGUISHING MEDIA	Use water spray carbon dioxide, or dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES

Contain run off from firefighting turn out gear (full bunker gear) and self-contained breathing apparatus NIOSH approved. Fire fighting equipment should be thoroughly decontaminated after use.

UNUSUAL FIRE AND EXPLOSION HAZARDS

When burned, hazardous, products of combustion including fumes of carbon monoxide, carbon dioxide, and fumes of tin oxide can occur. Avoid breathing fumes from fire exposed material.

EMERGENCY OVERVIEW

CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION

MAY CAUSE BLINDNESS

MAY BE HARMFUL IF SWALLOWED

MAY BE HARMFUL IF ABSORBED THROUGH SKIN

MAY CAUSE ALLERGIC SKIN REACTION

SECTION 5: HEALTH HAZARD AND PROTECTION DATA

DANGER!

**CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS. MAY CAUSE BLINDNESS.
MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN MAY CAUSE
ALLERGIC SKIN REACTION**

PERSONAL PROTECTION RECOMMENDED

Eye Protection

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available. Do not wear contact lenses when handling material.

Skin Protection

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact.

Respiratory Protection

Avoid breathing vapors. Use NIOSH/MSHA approved full-face respirator when airborne exposure limits are exceeded.



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FIRST AID FOR EXPOSURE

EYES & SKIN:

Flush with water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Destroy contaminated shoes.

INGESTION

Do not induce vomiting. Give water to drink. Get medical attention immediately.

INHALATION

Remove to fresh air. Give oxygen or artificial respiration if not breathing. Get immediate medical attention.

POTENTIAL HEALTH EFFECTS

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this CATALYST. Based on its composition, it is anticipated to be slightly toxic if swallowed or absorbed through skin, no more than slightly toxic if inhaled, and moderately to severely irritating to eyes and skin, or may possibly cause burns. Repeated or prolonged contact may cause an allergic skin reaction. EHA mist may be severely irritating or corrosive to the eyes nose, throat and respiratory tract. If swallowed, may cause burns to the mouth, throat and digestive tract due to the presence of EHA. Workers with lung disease or diminished respiratory capacity should limit exposure to this material.

SECTION 6: SPILL AND LEAKAGE PROCEDURES

Evacuate the hazard area of unprotected personnel.

SPILL RESPONSE

Stop the leak, if possible. Ventilate the space involved. Contain, sweep up, place in container for disposal. Prevent waterway contamination; construct a dike to prevent spreading. Avoid generation of vapors.

Decontaminate area.

Consult and comply with Federal, State, and local regulations concerning any release of hazardous materials into the water, water piping systems, ground, or air. Consult and comply with Federal, State and local regulations concerning removal of waste.

SECTION 7: STABILITY AND REACTIVITY DATA

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Conditions to avoid

None known.

Incompatibility

Contact with bases may result in a low energy release.

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

None known.



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SECTION 8: STORAGE AND HANDLING

Handling

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Storage

This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage. Upon storage in direct sunlight, this product may degrade to an inorganic tin salt.

SECTION 9: TOXICOLOGICAL INFORMATION

STANNOUS OCTOATE

Single exposure (acute) studies indicate:

Oral- Slightly Toxic to Rats

Dermal- No more than slightly Toxic To Rats

Eye irritation- Moderately irritating to Rabbits

Skin irritation- Moderately irritating to Rabbits

ETHYLHEXOIC ACID

Single exposure (acute) studies indicate:

Oral-Slightly Toxic to Rats

Dermal-Slightly Toxic to Rabbits

Inhalation –No More than slightly toxic to Rats

Eye Irritation-Corrosive to Rabbits

Skin Irritation-Severely Irritation to Corrosive to Rabbits

Stannous Octoate 97%

Single exposure (acute) studies indicate that stannous octoate is slightly toxic to rats if swallowed (LD50 3, 400 mg/kg), no more than slightly toxic to rats if absorbed through skin (LD50 >2,000 mg/kg), and moderately irritating to rabbit eyes and skin. Skin allergy and irritation were observed in guinea pigs following repeated application of stannous octoate. Stannous octoate produced no genetic changes in a standard test using bacterial cells.

SECTION 10: ECOLOGICAL INFORMATION

An ecological effect study has not been conducted and no information on this or similar mixtures was found in a search of scientific literature. However a component of this material has been tested and the data summarized below. Ethyl Hexanoic Acid (EHA): Slightly toxic to fathead minnow on an acute basis with LC50 value of 70mg/l. EHA produced a dose-related increase in the number of malformations in frog embryos.



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Ethylhexoic Acid: The log kow of EHA was determined to be 2.67. The theoretical oxygen demand ThOD for EHA was determined to be 2.44 g oxygen/g. The 20 day Biochemical Oxygen Demand BOD for EHA was determined to be 83% of the ThOD. EHA is expected to biodegrade and is not expected to persist for long periods in an aquatic environment.

State Right to Know Programs

California Proposition 65

This product does contain chemicals, as indicated below, currently on the California List of known Carcinogens and Reproductive Toxins.

****None****

Massachusetts- New Jersey- Pennsylvania Right to Know States

This product does contain the following chemicals currently, as indicated below, on the Hazardous Substance List, and if identified any additional lists of these States.

*****STANNOUS OCTOATE*****

SARA Title III, Section 302 & 313

This product does not contain chemicals currently on the Extremely Hazardous Substance List.

SECTION 12: TRANSPORT INFORMATION

DOT Proper Shipping Name	Not regulated
DOT Hazard class	N/App.
Technical Shipping Name	N/App
DOT Label & ID #	N/App.

SECTION 13: REGULATORY INFORMATION

SARA HAZARD CLASSIFICATION Title III Rules (20CFRPart 370)

Immediate (Acute) Health	Yes
Delayed (Chronic) Health	Yes
Sudden Release of Pressure	No
Reactive	No
Fire	No

The ingredients listed in this product are all on the TSCA inventory.

SECTION 16: OTHER INFORMATION

DISCLAIMER / STATEMENT OF LIABILITY:

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prevention as necessary or appropriate to the use and understanding of the data contained in this SDS.

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