



Factor II, Incorporated

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MATERIAL SAFETY DATA SHEET TS-401 A&B SILICONE GEL BARRIER

In Case of Emergency Contact 928-242-1308 FactorII, Inc.

Factor II Technology urges each customer or recipient of this MSDS 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 fire prevention, as necessary or appropriate to the use and understanding of the data contained in this MSDS.

To promote safe handling each customer or recipient should: (1) notify and furnish its employees, agents, contractors, customers, and others whom it knows or believes will use this material of the information regarding hazards or safety; (2) request its customers to notify their employees, customers and other users of the product of this information.

1. CHEMICAL PRODUCT

PRODUCT NAME: TS-401 A&B SILICONE GEL BARRIER
CHEMICAL NAME: N/A
CHEMICAL FAMILY: Silicone Dispersion
FORMULA: Proprietary
SYNONYMS: N/A
CAS#: Mixture

2. HAZARDOUS INGREDIENTS

%	MATERIAL	CAS#	EXPOSURE VALUE	CLASSIFICATION
65	1,1,1 Trichloroethane	00071-55-6	See Section 5	See Section 4
5	Silica, amorphous, treated	68909-20-6	See Section 5d	See Section 4

3. FIRE AND EXPLOSION DATA

FLASH POINT (test method(s)): None

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 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.



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UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

4. HEALTH HAZARD DATA

OCCUPATIONAL EXPOSURE VALUES AND SOURCE:

1,1,1 Trichloroethane: 350ppm- 8 hours TWA (ACGIH, OSHA)
450 ppm – STEL/CEIL © ACGIH, OSHA
Silica, amorphous: 10mg/m³-8 hours TWA (ACGIH,)
6 mg/m³-8 hours TWA (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.

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING:

May cause irritation of the mouth, throat, esophagus and stomach, with nausea, vomiting, diarrhea, dizziness, drowsiness, unconsciousness and death. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

SKIN ABSORPTION:

No evidence of adverse effects from available information.

INHALATION:

Vapor may be irritating, experienced as nasal discomfort and discharge, with dizziness, headache, drowsiness, nausea, vomiting, unconsciousness and death from respiratory failure.

SKIN CONTACT:

Can cause irritation with discomfort, seen as local redness and possible swelling. Prolonged contact may result in drying and cracking of the skin due to a defatting action.

EYE CONTACT:

Direct contact may cause temporary discomfort with excessive redness, dryness, irritation and swelling of the conjunctiva.

EFFECTS OF REPEATED OVEREXPOSURE:

1,1,1 Trichloroethane may produce toxicity, presented as cardiac arrhythmias and or myocardial injury leading to cardiac failure.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

Because of its irritating and defatting properties, this material may aggravate an existing dermatitis.



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SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: OTHER EFFECTS OF OVEREXPOSURE

Evidence suggesting high frequency hearing loss was obtained from rats repeatedly exposed to high concentrations of 1,1,1 Trichloroethane.

Rats exposed to high concentrations (2100 ppm) of 1,1,1-Trichloroethane before and during pregnancy displayed an increased number of fetal anomalies. Most of the anomalies observed involved a delay in skeletal development or bone formation. These anomalies are not malformations but rather variations of normal development that are not detrimental to offspring and are often reversible. Such anomalies are not considered evidence of teratogenicity but rather of reversible development delay.

5. FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION

Remove individual to fresh air. If breathing difficulties provide oxygen if someone medical in attendance. If not breathing give mouth to mouth artificial respiration. Get immediate medical attention.

EYE AND SKIN CONTACT

Flush eyes with copious amounts of water for at least 15 minutes. Wash skin with soap and water for at least 15 minutes. Remove all contaminated clothing and launder prior to reuse. Properly discard all leather articles, which may be soaked with product.

INGESTION

If conscious, drink large amounts of water, do not induce vomiting. Get immediate medical attention. Never administer anything by mouth to an unconscious person. If vomiting occurs spontaneously keep individual's head below their hips to prevent aspiration of material into the lungs. Seek medical attention. If unconscious or in convulsions take immediately to the hospital.

Other health warnings

Note to Physician

Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g. gastric lavage after endotracheal intubation).

Repeated overexposure to 1,1,1-Trichloroethane may result in a cardiotoxic interaction with halothane during general anesthetic procedures, possibly resulting in ventricular arrhythmias and or deterioration of established cardiac failure.

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.

7. HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING AND STORAGE:

Harmful if swallowed or inhaled

Keep container closed



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Causes skin and eye irritation
May cause dizziness and drowsiness
May cause heart damage
Aspiration may cause lung damage
NOTE: DO NOT INDUCE VOMITING

Use with adequate ventilation
Avoid breathing vapor, mist, gas
Wash thoroughly after handling
Avoid contact with eyes, skin and clothing

Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE VALUES AND SOURCE: None.

RESPIRATORY PROTECTION:

Use NIOSH approved respirator or self-contained breathing apparatus as needed to maintain person's 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.

9. PHYSICAL AND CHEMICAL PROPERTIES (based on typical material)

BOILING POINT: 162-190°F @ 760 mm Hg

SPECIFIC GRAVITY (H₂O=1): 1.16

FREEZING POINT: N/A

VAPOR PRESSURE, mm Hg @ 25°C: 100

VAPOR DENSITY (air=1): 4.6

EVAPORATION RATE (Butyl Acetate=1): N/A

SOLUBILITY IN WATER (By wt): 0.04% @ 25C

APPEARANCE: Translucent

ODOR: Sweet Odor

PHYSICAL STATE: Liquid

PERCENT VOLATILES (by wt): See Section X

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

10. STABILITY AND REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Avoid contact with elevated temperatures, open flame and other ignition sources.



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INCOMPATIBILITY: Avoid strong alkalis, oxidizing materials can cause a reaction.

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.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TRANSPORT INFORMATION

I.A.T.A. HAZARD CLASSIFICATION:

Proper Shipping Name: 1,1,1-Trichloroethane solution)
Hazard Class: 6.1
UN Number: UN 2831
UN Packing Group: III
Hazard Label: Toxic

12. 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 physico-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:

****NONE****

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:

MATERIAL	CAS NUMBER	CONCENTRATION
1,1,1-Trichloroethane	00071-55-6	65%

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, 301, and 312). Components present in this product at a level which could require reporting under the statute are:

**** NONE ****



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We believe that the information contained herein is current as of the date of this Material Safety Data Sheet, and is offered in good faith. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of Factor II Technology, it is the user's obligation to determine the conditions of safe use of the product.