TA Aerospace: Esterline Corporation
Engineered Materials
28065 Franklin Parkway
Valencia, CA 91355-4117

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NYSE Symbol: ESL

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(According UN GHS SDS Guidelines; Third Revised Edition)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

Substance Identification: FASTBLOCK® 100
Synonyms: RTV-MB-401, RTV-MB-416, TA 18000

Chemical Family/ Intended Use: Mixture/ Elastomeric Firewall Sealant

Supplier Identification:
TA Aerospace: Esterline Corporation
28065 Franklin Parkway
Valencia, California 91355-4117
USA
www.esterline.com
Tel: (661) 775-1100
Fax: (661) 775-1155

Emergency Contact Information: CHEMTREC (24hr) (800) 424-9300

SECTION 2: HAZARDOUS IDENTIFICATION

Hazard Classification(s):

Physical Hazard Classification:	N/A
Health Hazard Classification:	Category 3: mild skin irritant Category 2B: mild eye irritant Category 1B: possible skin sensitizer Category 2: possible organ damage
Environmental Hazard Classification:	N/A

Label Elements:

Signal Word: **Warning!**

Hazard Statements:

H303+H313+H333:	May be harmful if swallowed, in contact with skin, or inhaled
H335:	May cause respiratory irritation
H336:	May cause drowsiness or dizziness
H373:	May cause damage to kidneys and/or bladder through prolonged or repeated exposure

Precautionary Statements:

P261:	Avoid breathing dust/ fumes*
P264:	Wash thoroughly after handling
P281:	Use personal protective equipment as required
P333+P313:	If skin irritation or rash occurs seek medical attention
P402+P404:	Store in a dry place, in a closed container

SECTION 2: HAZARDOUS IDENTIFICATION (CONT.)

Non-Classified Hazards: *This form of FASTBLOCK® 100 precludes exposure to dust. Avoid generating respiratible dust.*

HMIS/ NFPA Classification:

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	EINECS/ ELINCS No.	Concentration
Quartz*	14808-60-7	238-878-4	< 20.0%
Xylene(s)	1330-20-7	215-535-7	< 20.0%
Titanium Dioxide**	13463-67-7	236-675-5	< 15.0%
Calcium Sulfate**	7778-18-9	231-900-3	< 10.0%
Methyltrimethoxysilane	1185-55-3	214-685-0	< 10.0%
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-hydrolysis products with silica*	68909-20-6	272-697-1	< 10.0%

Health hazards associated with quartz and other fibrogenic dusts arise following inhalation exposure to respirable particles. Quartz in FASTBLOCK® 100 (cured or uncured) is not available in a respiratible form.

This form of FASTBLOCK® 100 precludes exposure to dust. Avoid generating respiratible dust.

SECTION 4: FIRST AID MEASURES

Ingestion: Rinse mouth out with plenty of water; seek medical attention as soon as possible.

Skin: Rinse thoroughly with water. If rash develops, seek medical attention.

Inhalation: Remove the affected individual to fresh air and assist in breathing if necessary seek medical attention.

Eyes: Rinse thoroughly with water for 15 minutes. If irritation persists, seek medical attention.

Acute Symptoms: May cause gastrointestinal distress, skin irritation, respiratory irritation, and eye irritation. Treat as methyl alcohol poisoning.

Chronic Symptoms: Data available indicate no suspicion of carcinogenicity. This material contains borosilicate glass which has been classified by IARC as possibly carcinogenetic to humans, and by NTP as reasonably anticipated to be a human carcinogen. As manufactured, product does not contain respiratible particulates. Avoid grinding, crushing, or otherwise generating respiratible dust.

SECTION 5: FIRE-FIGHTING MEASURES

Flash Point (Closed Cup):	Not determined
Auto Ignition Temperature:	932° F (500° C)
Flammability Limits in Air:	Not determined
Extinguishing Media:	Carbon Dioxide, Water, ABC Dry Fire Extinguisher
Unsuitable Extinguishing Media:	None
Fire Fighting Procedure:	Self-contained breathing apparatus (supplied air respirator) and protective clothing should be worn in fighting fires involving chemicals. If a significant quantity is involved, evacuate area and contact fire department.
Unusual Fire Hazards:	None
Hazardous Decomposition Products:	Thermal decomposition at high heat may evolve the following hazardous decomposition products: Metal oxides, Carbon oxides, Silicone oxides, and Formaldehyde.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Utilize safety glasses and chemical resistant gloves as a minimum. If cleaning large quantities of material, utilize a NIOSH approved respirator.
Environmental Precautions:	Prevent material from spreading or entering drains, ditches, or rivers by using sand, earth, or any other appropriate form of barrier. Alert local authorities if this precaution is not possible. Material is heavier than water and will sink.

Refer to Section 8 for Personal Protective Equipment suggestions

SECTION 7: HANDLING AND STORAGE

Handling Precautions:	Avoid eye and skin contact. It is recommended to have local exhaust ventilation in the work area. Although this material precludes exposure to dust; avoid grinding, crushing, or otherwise generating respiratible dust. Utilize good occupational hygiene practices prior to food or drink consumption.
Storage Precautions:	Keep material lid on and store in a cool, dry area away from acids, bases, and strong oxidizers.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Controls:

Name	CAS No.	Exposure Limits
Quartz	14808-60-7	0.05 mg/m^3 total dust*
Xylene(s)	1330-20-7	100 ppm (8hr) TWA recommendation
Titanium Dioxide	13463-67-7	10 mg/m^3 total dust**
Calcium Sulfate	7778-18-9	10 mg/m^3 total dust**
Methyltrimethoxysilane	1185-55-3	200 ppm (8hr) TWA recommendation

Health hazards associated with quartz and other fibrogenic dusts arise following inhalation exposure to respirable particles. Quartz in FASTBLOCK® 100 (cured or uncured) is not available in a respiratible form.

Comment: This form of preparation precludes exposure to dust. Avoid generating respirable dust.

Engineering Controls: Eye wash stations, local exhaust ventilation, and general dilution ventilation is required

Personal Protective Equipment

Eye Protection: Utilize safety glasses or goggles as a minimum

Skin Protection: Utilize chemical resistant gloves and protective clothing

Respiratory Protection: Utilize a NIOSH approved respirator
Utilize a NIOSH approved dust respirator where dust is unavoidable

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White or Grey, High Consistency Paste
Odor:	Aromatic Odor
Odor Threshold:	not determined
pH:	not determined
Melting Point:	not determined
Freezing Point:	not determined
Boiling Point Range:	not determined
Flash Point:	not determined
Evaporation Rate:	not determined
Flammability:	not determined
Explosive Properties:	None
Vapor Pressure:	not determined
Vapor Density:	not determined
Relative Density:	not determined
Specific Gravity:	approx. 1.3 (At room temperature)
Solubility:	not determined
Solubility in Water:	None
Partition Coefficient:	not determined
Auto-ignition Temperature:	932° F (500° C)
Decomposition Temperature:	not determined
Viscosity:	N/A
VOC:	226.4 g/L (1.89 lb/gal)

SECTION 10: STABILITY AND REACTIVITY

Reactivity: This product should not spontaneously react if stored in a cool, dry area.

Chemical Stability: This product is stable; hazardous polymerization should not occur under normal use.

Possible Hazardous Reactions: This product is stable; hazardous polymerization should not occur under normal use.

Conditions to Avoid: Oxidizing agents may cause a reaction. Avoid prolonged exposure to heat above 300° F (150° C). Material may form methyl alcohol when exposed to free water and high humidity.

Incompatible Materials: Keep material lid on and store in a cool, dry area away from acids, bases, and strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition at high heat may evolve the following hazardous decomposition products: Metal oxides, Carbon oxides, Silicone oxides, Formaldehyde, and other organic acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: May be harmful if swallowed, in contact with skin, or inhaled. Utilize proper personal protective equipment.

	Species	Test Result
Dermal LD50:	Rabbit	> 2,000 mg/kg

Skin Corrosion/ Irritation: This material is considered a Category 3 Mild Skin Irritant. Utilize proper personal protective equipment.

Serious Eye Damage/ Irritation: This material is considered a Category 2B Mild Eye Irritant. Utilize proper personal protective equipment.

Respiratory or Skin Sensitization: This material is considered a Category 1B Possible Skin Sensitizer. Utilize proper personal protective equipment.

Germ Cell Mutagenicity: Information not available

Carcinogenicity:
Data available indicate no suspicion of carcinogenicity. This material contains borosilicate glass which has been classified by IARC as possibly carcinogenetic to humans, and by NTP as reasonably anticipated to be a human carcinogen. As manufactured, product does not contain respiratible particulates. Avoid grinding, crushing, or otherwise generating respiratible dust.

Health hazards associated with quartz and other fibrogenic dusts arise following inhalation exposure to respirable particles. Quartz in FASTBLOCK® 100 (cured or uncured) is not available in a respiratible form.

SECTION 11: TOXICOLOGICAL INFORMATION (CONT.)

Other Toxicological Information:
FASTBLOCK® 100 contains Methyltrimethoxysilane (MTMS). MTMS was evaluated in a combined repeated-dose toxicity study with the reproductive/ developmental toxicity screening test (OECD 422). Sprague-Dawley rats were gavaged daily at dose levels 0, 50, 250, and 1000 mg MTMS (in corn oil)/ kg body mass. Test article-related effects were seen in both sexes at the two top dose levels and included (but not limited to): increased liver weights, increased incidence of hyperplasia and/or hypertrophy in the liver, thyroid and adrenals (highest dose only), acanthocytosis (highest dose only), increased prothrombin time, elevations in blood platelet count (highest dose only), serum total protein and cholesterol. The no observed adverse effect level (NOAEL) was determined to be 50 mg/ kg/ day for parental toxicity and 1000 mg/ kg/ day for effects on reproductive performance and on developmental toxicity.

FASTBLOCK® 100 may liberate methanol upon exposure to moisture or humid air. Overexposure to methanol can result in blindness and nervous system effects.

Reproductive Toxicity: Information not available

STOT Single Exposure: Information not available

STOT Repeated Exposure: Information not available

Aspiration Hazard: Information not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:
Information not available

Persistence and Degradability:
Low molecular weight siloxanes have very little water solubility and evaporate into air. These are degraded by reaction with hydroxyl radicals, which is the dominant process for most chemicals in the atmosphere. Low molecular weight volatile siloxanes in soil are removed by several simultaneously occurring processes including volatilization, hydrolysis, and clay-catalyzed degradation.

Bioaccumulative Potential:
Information not available

Mobility in Soil:
Information not available

Other Adverse Effects:
No adverse effects on bacteria are predicted. This product will not contribute to BOD. Siloxanes are efficiently removed (>90%) during wastewater treatment with approximately equal amounts going to the atmosphere and sludge. Low molecular weight volatile siloxanes in treated wastewater effluent will be bound to particulate matter due to very low water solubility.

Once cured, FASTBLOCK®100 poses no health or environmental hazard under current legislation
Information based upon data from similar products

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Personnel: Please adhere to all local, state, and federal regulations. Please refer to section 8 of this SDS for proper PPE and handling suggestions.

Special Considerations: None

For further disposal information contact:
TA Aerospace 661-775-1100

SECTION 14: TRANSPORTATION INFORMATION

DOT UN DOT Shipping name: CHEMICAL NOI

Road / Rail (ADR/RID) Not subject to ARD/RID

Sea Transport (IMDG) Not subject to IMDG code

Air Transport (IATA) Not subject to IATA regulation

SECTION 15: REGULATORY INFORMATION

Federal Regulations:

TSCA, US:	Released/listed
SARA (Title III §313 and 40 C.F.R. Part 372):	Xylene(s)
SARA (Title III §§311/312):	None

ACGIH Biologically Derived Airborne Contaminants:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%
Xylene(s)	1330-20-7	< 20.0%
Titanium Dioxide	13463-67-7	< 15.0%
Calcium Sulfate	7778-18-9	< 10.0%

California Hazardous Substances List:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

California Proposition 65:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%

Canada National Pollutant Release Inventory (NPRI):

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

SECTION 15: REGULATORY INFORMATION (CONT.)

CERCLA Priority List of Hazardous Substances:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

EPA Clean Air Act List of Hazardous Air Pollutants:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

Global Automotive Declarable Substance List (GADSL):

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%

Idaho Toxic Air Pollutants (TAP) Non-Carcinogenic Increments:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%
Xylene(s)	1330-20-7	< 20.0%

Illinois List of Toxic Air Contaminants:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

Maine Hazardous Air Pollutants List and Reporting Thresholds:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

Minnesota Hazardous Substances:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%
Xylene(s)	1330-20-7	< 20.0%
Titanium Dioxide	13463-67-7	< 15.0%
Calcium Sulfate	7778-18-9	< 10.0%

New Jersey Right-to-Know Hazardous Substance List:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%
Xylene(s)	1330-20-7	< 20.0%
Titanium Dioxide	13463-67-7	< 15.0%

SECTION 15: REGULATORY INFORMATION (CONT.)

New York Hazardous Substance List:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

North Carolina Hazardous Air Pollutants:

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

OSHA Limits for Air Contaminants:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%
Xylene(s)	1330-20-7	< 20.0%
Titanium Dioxide	13463-67-7	< 15.0%
Calcium Sulfate	7778-18-9	< 10.0%

Pennsylvania Hazardous Substance List:

Name	CAS No.	Wt. (%)
Quartz	14808-60-7	< 20.0%
Xylene(s)	1330-20-7	< 20.0%
Titanium Dioxide	13463-67-7	< 15.0%
Calcium Sulfate	7778-18-9	< 10.0%

REACH List of Registered Phase-in Substances:

Name	CAS No.	EINECS/ ELINCS No.	Wt. (%)
Xylene(s)	1330-20-7	215-535-7	< 20.0%
Titanium Dioxide	13463-67-7	236-675-5	< 15.0%
Calcium Sulfate	7778-18-9	231-900-3	< 10.0%
Methyltrimethoxysilane	1185-55-3	272-697-1	< 10.0%

West Virginia Hazardous Air Pollutants (HAPs):

Name	CAS No.	Wt. (%)
Xylene(s)	1330-20-7	< 20.0%

SECTION 16: OTHER INFORMATION

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

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