

MATERIAL SAFETY DATA SHEET

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Laurel Industries, Inc.
780 S. 16th Street
LaPorte, TX 77571

Customer Service and/or Information:
(281) 471-1731 ext 100 – Business Hours

EMERGENCY TELEPHONE NUMBERS:

CHEMTREC: (800) 424-9300 (24 hours) or (202) 483-7616
LAUREL: (281) 471-1731 (24 hours)

NAME USED ON LABEL: THERMOGUARD® S FLAME RETARDANT

CHEMICAL NAME: See Ingredients
CHEMICAL FAMILY: Antimony Compound

Section 2 - COMPOSITION/INFORMATION ON INGREDIENTS

CAS NUMBER % (Max)	OSHA PEL	ACGIH TLV	ACGIH STEL	ACGIH
1309-64-4 Antimony Oxide	0.5 mg/m ³ as Sb	0.5 mg/m ³ as Sb	None	>99.4
7440-38-2 Arsenic	0.01 mg/m ³ as As	0.01 mg/m ³ as As	None	<.4
7439-92-1 Lead	.05 mg/m ³	.05 mg/m ³	None	<.2

The ingredient (s) of this product are all on the TSCA Inventory List.

Section 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White crystalline powder, odorless

WARNING! MAY CAUSE EYE AND SKIN IRRITATION
MAY CAUSE RESPIRATORY TRACT IRRITATION

POTENTIAL HEALTH EFFECTS: Inhalation and skin contact are expected to be the primary routes of occupational exposure to this product. Due to the presence of antimony oxide, the major component of this product, prolonged or repeated contact of skin with this material may result in skin irritation and rashes.

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Skin irritation is worse when the skin is moist, as with perspiration, or where clothing repeatedly rubs against skin. Irritation is more common in hot weather. Excessive exposure to dusts or vapors of antimony oxide may produce irritation of the upper respiratory tract and eyes and, over the longer term, a non-disabling lung disease called pneumoconiosis.

Arsenic, a minor component of this product, may cause toxic effects after both single exposures and repeated or long-term exposures by inhalation or ingestion (swallowing). Exposure to airborne arsenic may be irritating to the eyes, skin and mucous membranes of the respiratory tract and may cause dermatitis (inflammation of the skin). Repeated high exposures to arsenic may cause holes through the nasal septum. Poisoning due to single inhalation exposures to inorganic arsenic is exceedingly rare in industry. When it does occur, respiratory tract symptoms such as cough, chest pain, shortness of breath, giddiness, headache and extreme general weakness precede digestive tract symptoms. Long-term exposure to arsenic by inhalation may result in nervous and circulatory disorders. Symptoms of chronic poisoning are nausea and diarrhea, numbness of the hands and feet and, in severe cases, motor paralysis. Circulatory system disorders noted include blue tinge to the fingers and toes and constriction of the peripheral blood vessels. Arsenic compounds are known to cause skin and lung tumors.

While swallowing of this product is unlikely in the industrial setting, accidental swallowing of large amounts of antimony oxide is reported to produce severe gastrointestinal symptoms including vomiting and diarrhea; on rare occasions, coma and death have occurred. Swallowing of arsenic may produce adverse effects such as constriction of the throat followed by difficulty in swallowing, digestive tract pain, vomiting, diarrhea, dermatitis, anemia, nervous system damage (peripheral neuritis), liver toxicity and, in some cases, death. Chronic arsenic poisoning after long-term exposure by ingestion is characterized by lesions of the skin and mucous membranes (e.g., thickening and hyperpigmentation), as well as, nervous and circulatory system effects.

Section 4 - FIRST AID MEASURES

IN CASE OF CONTACT: Flush the area with plenty of water. Remove material from clothing and wash before reuse.

IF SWALLOWED: Induce vomiting immediately as directed by medical personnel. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED: Remove to fresh air.

Section 5 - FIRE FIGHTING MEASURES

Flash Point (Test Method): N/A
Autoignition Temperature: N/A
Flammable Limits: Upper: N/A
Lower: N/A

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, carbon dioxide, foam and dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand MSHA/NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

FIRE AND EXPLOSION HAZARDS: Toxic fumes may be liberated if product is exposed to elevated temperatures or open flame.

Section 6 - ACCIDENTAL RELEASE MEASURES

IF A SPILL OR LEAK OCCURS: Sweep and remove material. Put in suitable container. Flush spill area with water.

Section 7 - HANDLING & STORAGE

HANDLING: Avoid breathing processing fumes or vapors.
Process using adequate ventilation.

STORAGE: Keep in cool, dry ventilated storage in closed containers, away from oxidizers, heat and flames. Material can burn; limit indoor storage to area equipped with appropriate automatic sprinkler system.

Section 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS: Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

EYE PROTECTION: Use good industrial practice to avoid eye contact.

SKIN PROTECTION: Wear appropriate chemical resistant protective clothing and chemical gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before use. Wash skin thoroughly after handling.

RESPIRATORY PROTECTION: Avoid breathing fumes. Use NIOSH approved respiratory protection equipment appropriate to the material and/or its components where airborne exposure limits are exceeded.

Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR 1910.134.

Section 9 - PHYSICAL & CHEMICAL DATA

Boiling Point, C:	1435 C
Freezing Point, C:	N/A
Specific Gravity:	5.67
Vapor Pressure @ 20 C:	0 mm
Vapor Density:	N/A air = 1
Evaporation Rate:	N/A Butyl acetate = 1
% Volatiles:	0.5%
Solubility in Water	Very Slight
Appearance and Odor:	White crystalline powder, odorless

Section 10 - STABILITY & REACTIVITY

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

INCOMPATABILITY: Strong oxidizers, acids, halogenated acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Antimony fumes.

HAZARDOUS POLYMERIZATION: Does not occur.

Section 11 - TOXICOLOGICAL INFORMATION

Laurel Industries, Inc., has not conducted toxicity studies on this product and no information on this or similar mixtures was found in a search of the scientific literature.

Section 12 - DISPOSAL CONSIDERATIONS

Recover, reclaim or recycle when practical. Dispose of in an approved landfill if allowed locally. Comply with all Federal, State and local regulations. Dispose of in a permitted waste management facility if incineration or landfill is not practical.

NOTE: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, State and local waste disposal requirements may be more restrictive or otherwise different from Federal laws and regulations.

Section 13 - TRANSPORT INFORMATION

PACKAGE SIZE:	250 lbs. or less
DOT SHIPPING NAME:	Antimony Trioxide (Antimony Oxide)
DOT HAZARD CLASS:	N/A
PACKAGE SIZE:	251-999 lbs.
DOT SHIPPING NAME:	RQ Environmentally Hazardous Substance, Solid, N.O.S. (Arsenic), 9, UN3077, PGIII
DOT HAZARD CLASS:	9
PACKAGE SIZE:	1,000 lbs. and greater
DOT SHIPPING NAME:	RQ Environmentally Hazardous Substance, Solid, N.O.S., (Antimony Trioxide, Arsenic), 9, UN3077, PGIII
DOT HAZARD CLASS:	9

Section 14 - REGULATORY INFORMATION

SARA HAZARD CLASSIFICATION

Immediate (Acute) Health:	yes
Delayed (Chronic) Health:	no
Sudden Release of Pressure:	no
Reactive:	no
Fire:	no

SARA Title III, Section 302:

This product does not contain any chemicals currently on the Extremely Hazardous Substance List, Section 302, SARA Title III, above the OSHA de minimis concentration.

SARA Title III, Section 313:

This product contains:

ANTIMONY OXIDE	1309-64-4
ARSENIC	7440-38-2
LEAD	7439-92-1

which are listed on the Toxic Chemical List, Section 313, SARA Title III.

CERCLA RQ

This product contains:

ANTIMONY OXIDE	1309-64-4
ARSENIC	7440-38-2
LEAD	7439-92-1

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California Proposition 65:

This product contains the following materials that are listed on the California List of Known Carcinogens:

ARSENIC	7440-38-2
LEAD	7439-92-1

Pennsylvania Right-to-Know Hazardous Substance List

This product contains:

ANTIMONY OXIDE	1309-64-4
ARSENIC	7440-38-2
LEAD	7439-92-1

which are listed on the Pennsylvania Hazardous Substance List.

Pennsylvania Right-to-Know Environmental Hazardous Substance List

This product contains:

ARSENIC	7440-38-2
LEAD	7439-92-1

which are listed on the Pennsylvania Environmental Hazardous Substance List.

Pennsylvania Right-to-Know Special Hazardous Substance List

This product contains:

ARSENIC	7440-38-2
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which are listed on the Pennsylvania Special Hazardous Substance List.

Massachusetts Right-to-Know

This product contains:

ANTIMONY OXIDE	1309-64-4
ARSENIC	7440-38-2
LEAD	7439-92-1

which are listed on the Massachusetts Hazardous Substance List.

New Jersey Right-to-Know

This product contains:

ANTIMONY OXIDE	1309-64-4
ARSENIC	7440-38-2
LEAD	7439-92-1

which are listed on the New Jersey Hazardous Substance List.

Section 15 - OTHER

Legend:

N/A - Not Applicable

NE - Not Established

NJTSN - New Jersey Trade Secret Number

THERMOGUARD IS A REGISTERED TRADEMARK OF LAUREL INDUSTRIES, INC.

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