pmc organometallix

SAFETY DATA SHEET

Issue Date 26-Nov-2013 **Revision Date** 27-Jul-2017 **Version** 5

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **THERMOLITE® 108 STABILIZER**

Other means of identification

SDS Code CA_RFO
Document CA_RFO

Recommended use of the chemical and restrictions on use

Recommended Use Stabilizer.
Uses advised against Consumer use
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Plastic products: Toys
Biocidal Products (e.g. disinfectants, pest control)
Note REACH - Annex XVII #20

Details of the supplier of the safety data sheet

Supplier Address
PMC Organometallix Inc.
2316 Highland Ave
Carrollton, KY 41008

Emergency telephone number

Company Phone Number PMC Organometallix Customer Service: 1-855-638-2549; 1-856-638-2156
24 Hour Emergency Phone Number Chemtrec 1-800-424-9300 Chemtrec [INT]: +1-703-527-3887
Emergency Telephone Chemtrec [INT]: +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1B
Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1

Label elements

Emergency Overview

DANGER

Hazard statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing genetic defects
May damage fertility or the unborn child

Causes damage to organs
Causes damage to organs through prolonged or repeated exposure

Appearance clear **Physical state** liquid **Odor** Slight to Sulphurous

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response
Specific treatment (see on this label)
Specific treatment (see on this label)
IF exposed: Call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other Information
Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.
Unknown Acute Toxicity 0.12 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Organotin compounds.
Chemical nature Tin organic compounds.

Chemical Name	CAS No	Weight-%	Trade Secret
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	10584-98-2	>80	*
Monobutyltin tris(2-ethylhexyl mercaptoacetate)	26864-37-9	<15	*
2-Ethylhexyl mercaptoacetate	7659-86-1	1 - 3	*
Monobutyltin trichloride	1118-46-3	1 - 3	*
Process Oil	Proprietary	1-3	*

*The percentage listed represents batch to batch variability in the product of this product; it does not represent any specification. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice Immediate medical attention is required. If symptoms persist, call a physician.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. If symptoms persist, call a physician. (Get medical attention immediately if irritation persists.).

Skin Contact FIRST -. Remove and isolate contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Seek immediate medical attention/advice.

Inhalation Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Immediate medical attention is required. If not breathing, give artificial respiration. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.

Self-protection of the first aider Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Runoff may pollute waterways.

Hazardous combustion products Carbon oxides. Hazardous metal fumes and oxides. Hydrocarbons. Oxides of sulfur. Hydrogen chloride.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See section 12 for additional ecological information. The product is insoluble and floats on water. Do not allow into any sewer, on the ground or into any body of water.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. Use personal protective equipment as required. Dam up. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Protect from direct sunlight.

Incompatible materials Acids, Bases, Strong oxidizing agents, Strong reducing agents, Incompatible with strong acids and bases, Incompatible with oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Exposure limits are listed below, if they exist.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	PMC OEL
Dibutyltin bis (2-ethylhexyl mercaptoacetate) 10584-98-2	STEL: 0.2 mg/m³ Sn TWA: 0.1 mg/m³ Sn S*	TWA: 0.1 mg/m³ Sn (vacated) TWA: 0.1 mg/m³ Sn (vacated) S*	IDLH: 25 mg/m³ Sn TWA: 0.1 mg/m³ except Cyhexatin Sn	TWA: 0.07 mg/m³ Sn
Monobutyltin tris(2-ethylhexyl mercaptoacetate) 26864-37-9	STEL: 0.2 mg/m³ Sn TWA: 0.1 mg/m³ Sn S*	TWA: 0.1 mg/m³ Sn (vacated) TWA: 0.1 mg/m³ Sn (vacated) S*	IDLH: 25 mg/m³ Sn TWA: 0.1 mg/m³ except Cyhexatin Sn	TWA: 0.07 mg/m³ Sn
Monobutyltin trichloride 1118-46-3	STEL: 0.2 mg/m³ Sn TWA: 0.1 mg/m³ Sn S*	TWA: 0.1 mg/m³ Sn (vacated) TWA: 0.1 mg/m³ Sn (vacated) S*	IDLH: 25 mg/m³ Sn TWA: 0.1 mg/m³ except Cyhexatin Sn	TWA: 0.07 mg/m³ Sn
Process Oil	TWA: 5 mg/m³ (oil mist)	TWA: 5 mg/m³ (oil mist)	-	-

Legend
S - Skin Absorber*

NIOSH IDLH — Immediately Dangerous to Life or Health

Other Information — Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls — Showers, Eyewash stations, Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection — Tight sealing safety goggles. Face protection shield.

Skin and body protection — Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection — If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations — Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid		
Appearance	clear	**Odor**	Slight to Sulphurous
Color	yellow	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	No information available	
Melting point / freezing point	-30 °C / -22 °F	
Boiling point / boiling range	> 200 °C / 392 °F	
Flash point	> 120 °C / > 248 °F	Tag Closed Cup
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No known effects under normal use conditions.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials
Acids, Bases, Strong oxidizing agents, Strong reducing agents, Incompatible with strong acids and bases, Incompatible with oxidizing agents.

Hazardous Decomposition Products
Carbon oxides, Hazardous metal fumes and oxides, Hydrocarbons, Oxides of sulfur, Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information In the presence of moisture - formation of hydrochloric acid.

Inhalation Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Eye contact Severely irritating to eyes. (based on components).

Skin Contact Severe skin irritation. (based on components). Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact.

Ingestion Reacts with gastric acid to form organotin chlorides.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dibutyltin bis (2-ethylhexyl mercaptoacetate)	510 - 4439 mg/kg (Rat)	777 mg/kg (LD50, Rat, Occluded) >1000 mg/kg (LD0, Rat, Semi-Occluded)	0.94 mg/l (Rat, aerosol)
Monobutyltin tris(2-ethylhexyl mercaptoacetate)	1063 mg/kg (Rat) 1520 mg/kg (Mice)		
Monobutyltin trichloride	2200 - 2300 mg/kg (Rat)		

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.
STOT - single exposure lungs
STOT - repeated exposure May cause disorder and damage to the. Thymus.

Chronic toxicity May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects. Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

Target Organ Effects blood, Central nervous system, Eyes, kidney, liver, Respiratory system, Skin, Urinary Tract, lungs, Thymus.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 548 mg/kg
ATEmix (dermal) 947 mg/kg
ATEmix (inhalation-dust/mist) 1.1 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life, Very toxic to aquatic life with long lasting effects.

1.12 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Dibutyltin bis (2-ethylhexyl mercaptoacetate) 10584-98-2	0.56: 72 h Scenedesmus subspicatus mg/L EC50 : 72 h Desmodesmus subspicatus (green algae) mg/L EC50	11.7: 96 h Brachydanio rerio mg/L LC50 static > 10.75: 96 h Danio rerio mg/L LC50 static	> 100 mg/l	0.035: 48 h Daphnia magna mg/L EC50 = 0.640: 21 d Daphnia magna Straus mg/L EC50
Monobutyltin tris(2-ethylhexyl mercaptoacetate) 26864-37-9	> 0.36: 72 h Desmodesmus subspicatus mg/L EC50 (water accommodated fraction)	> 2.3: 96 h Danio rerio mg/L LC50 static		> 0.117: 21 d Daphnia magna Straus mg/L EC50 (water accommodated fraction.)
2-Ethylhexyl mercaptoacetate 7659-86-1	0.41: 72 h Pseudokirchneriella subcapitata mg/L EC50 (biomass) 0.91: 72 h Pseudokirchneriella subcapitata mg/L EC50 (growth rate)	0.23 mg/l 96 h (Oncorhynchus mykiss (rainbow trout)) 9: 48 h Leuciscus idus mg/L LC50 4.4: 96 h Pimephales promelas mg/L LC50	= 2.7 mg/l	0.38: 48 h (Daphnia magna (Water flea))mg/L EC50
Monobutyltin trichloride 1118-46-3	0.31: 72 h Scenedesmus subspicatus mg/L EC50	> 100: 96 h Danio rerio mg/L LC50	= 135 mg/l	83: 48 h Daphnia magna Straus mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
Monobutyltin tris(2-ethylhexyl mercaptoacetate) 26864-37-9	12.5
2-Ethylhexyl mercaptoacetate 7659-86-1	4.7

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Dibutyltin bis (2-ethylhexyl mercaptoacetate) 10584-98-2	Toxic
Monobutyltin tris(2-ethylhexyl mercaptoacetate) 26864-37-9	Toxic
Monobutyltin trichloride 1118-46-3	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Regulated. 450 L Limit Per Package.
- **UN/ID No.** 3082
- **Proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S.
- **Hazard Class** 9
- **Packing Group** III
- **Marine Pollutant** This material meets the definition of a marine pollutant
- **Description** (Organotin mercapto ester)

IMDG Regulated
- **UN/ID No.** 3082
- **Proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S.
- **Hazard Class** 9
- **Packing Group** III
- **Marine pollutant** This material meets the definition of a marine pollutant
- **Description** (Organotin mercapto ester)

15. REGULATORY INFORMATION

All of the components in the product are on the following Inventory lists
The classification and labeling information in this Safety Data Sheet should be viewed as provisional.

International Inventories

EINECS/ELINCS	Complies or Exempt
TSCA	Complies
AICS	Complies
DSL/NDSL	Complies
ENCS	Complies
KECL	Complies
PICCS	Complies
IECSC	Complies
NZIoC	Does not comply
TCSI	Does not comply

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Any Substance regulated Title 40 of the Code of Federal Regulations, Part 372 is listed below, if it exists.

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
Any Substance regulated as a pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42) is listed below, if it exists.

CERCLA
Any Substance regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) is listed below, if it exists.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Process Oil	X		X

U.S. EPA Label Information
EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	**Health hazards** 2	**Flammability** 1	**Instability** 0	**Physical and Chemical Properties** *
HMIS	**Health hazards** 2*	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Chronic Hazard Star Legend * = Chronic Health Hazard

Prepared By PMC Group
Issue Date 26-Nov-2013
Revision Date 27-Jul-2017
Revision Note
(M)SDS sections updated 1 3 4

This material safety data sheet complies with the requirements of 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet