



# SAFETY DATA SHEET

Issue Date 26-Jun-2014

Revision Date 19-Aug-2015

Version 6

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

### Product identifier

**Product Name** ADVASTAB™ TM-404ER HEAT STABILIZER

### Other means of identification

**SDS Code** TM-404ER  
**Document** TM-404ER; CA\_CSX  
**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** Stabilizer.  
**Uses advised against** Consumer use

### Details of the supplier of the safety data sheet

#### **Supplier Address**

PMC Group Inc.  
1288 Route 73 South  
Mount Laurel, New Jersey 08054  
USA

### Emergency telephone number

**Company Phone Number** PMC Organometallic Customer Service: 1-855-638-2549; 1-856-638-2156  
**24 Hour Emergency Phone Number** CHEMTREC: 1-800-424-9300  
**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
Skin sensitization	Category 1B
Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1


### Label elements

#### **Emergency Overview**

**DANGER**

#### **Hazard statements**

Harmful if swallowed  
Harmful in contact with skin  
May cause an allergic skin reaction  
Suspected of causing genetic defects  
Suspected of damaging fertility or the unborn child  
May cause respiratory irritation  
Causes damage to organs through prolonged or repeated exposure



**Appearance** clear
**Physical state** liquid
**Odor** 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  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
 Specific measures (see on this label)  
 IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing 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.  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

**Precautionary Statements - Storage**

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

**Other Information**

Harmful to aquatic life with long lasting effects. Harmful to aquatic life.  
 Unknown Acute Toxicity 0% 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
Dimethyltin bis(2-ethylhexyl mercaptoacetate)	57583-35-4	>70	*
Methyltin tris(2-ethylhexyl mercaptoacetate)	57583-34-3	<30	*
2-Ethylhexyl mercaptoacetate	7659-86-1	<2.5	*

\* The exact percentage (concentration) of composition has been withheld as a trade secret. 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.

<b>Eye contact</b>	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.
<b>Skin Contact</b>	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash off immediately with soap and plenty of water.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**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.

## 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.

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

**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.

**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.

**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.

**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.

**Packaging materials** Keep/store only in original container.

**Incompatible materials** Acids, Strong 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
Dimethyltin bis(2-ethylhexyl mercaptoacetate) 57583-35-4	STEL: 0.2 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> Sn S*	TWA: 0.1 mg/m <sup>3</sup> Sn (vacated) TWA: 0.1 mg/m <sup>3</sup> Sn (vacated) S*	IDLH: 25 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> except Cyhexatin Sn	-
Methyltin tris(2-ethylhexyl mercaptoacetate) 57583-34-3	STEL: 0.2 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> Sn S*	TWA: 0.1 mg/m <sup>3</sup> Sn (vacated) TWA: 0.1 mg/m <sup>3</sup> Sn (vacated) S*	IDLH: 25 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> except Cyhexatin Sn	-

**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.

**Skin and body protection** Wear protective gloves and protective clothing. 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

<b>Physical state</b>	liquid	<b>Odor</b>	Sulphurous
<b>Appearance</b>	clear	<b>Odor threshold</b>	No information available
<b>Color</b>	light yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	
<b>Melting point/freezing point</b>		
<b>Boiling point / boiling range</b>	> 221 °C / 430 °F	Decomposes
<b>Flash point</b>	150 °C / 302 °F	Setaflash
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	<0.5 mmHg @ 25 °C ( 77 °F)	
<b>Vapor density</b>	No information available	
<b>Specific Gravity</b>	No information available	
<b>Water solubility</b>	Insoluble in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	0.1
<b>Density</b>	1.17g/cm <sup>3</sup> @ 25 °C (77 °F)
<b>Bulk density</b>	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, Strong oxidizing agents.

**Hazardous Decomposition Products**

Carbon oxides, Hazardous metal fumes and oxides, Hydrocarbons, Oxides of sulfur.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Product Information</b>	No data available.
<b>Inhalation</b>	May cause irritation.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin Contact</b>	Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact.
<b>Ingestion</b>	Reacts with gastric acid to form organotin chlorides.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyltin bis(2-ethylhexyl mercaptoacetate)	= 1150 - 1710 mg/kg (Rat)	> 1050 mg/kg (Rabbit)	
Methyltin tris(2-ethylhexyl mercaptoacetate)	= 880 - 1261 mg/kg (Rat)	= 1000 - 2150 mg/kg (Rabbit)	
2-Ethylhexyl mercaptoacetate	303 - 334 mg/kg (Rat)	> 2000 mg/kg (Rat) OECD 402	0.51 mg/l (LC0, Rat)

**Information on toxicological effects**

**Symptoms** No information available.

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

<b>Sensitization</b>	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available
<b>STOT - repeated exposure</b>	No information available.
<b>Chronic toxicity</b>	Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
<b>Target Organ Effects</b>	blood, Central nervous system, Eyes, kidney, liver, Respiratory system, Skin, Urinary Tract.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

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

<b>ATEmix (oral)</b>	1229 mg/kg
<b>ATEmix (dermal)</b>	1056 mg/kg
<b>ATEmix (inhalation-vapor)</b>	1359

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea

Dimethyltin bis(2-ethylhexyl mercaptoacetate) 57583-35-4	270: 72 h Selenastrum capricornutum mg/L EC50 (growth rate) 120: 72 h Selenastrum capricornutum mg/L EC50 (biomass)	> 1000: 96 h Pimephales promelas mg/L LC50 static		32: 48 h Daphnia magna Straus mg/L EC50 =1.03: 21 d Daphnia magna mg/L EC50 = 1-10%: 21 d Daphnia magna NOEC
Methyltin tris(2-ethylhexyl mercaptoacetate) 57583-34-3	> 1.8: 72 h Desmodesmo subspicatus mg/L EC50	> 6: 96 h Danio rerio mg/L LC50	> 1000 mg/l	= 2.9: 24 h Daphnia magna Straus mg/L EC50 = 0.31: 21 d Daphnia magna Straus mg/L EC50 = 0.13: 21 d Daphnia magna Straus mg/L NOEC
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

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
Dimethyltin bis(2-ethylhexyl mercaptoacetate) 57583-35-4	8.5
Methyltin tris(2-ethylhexyl mercaptoacetate) 57583-34-3	11
2-Ethylhexyl mercaptoacetate 7659-86-1	2.43

**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
Dimethyltin bis(2-ethylhexyl mercaptoacetate) 57583-35-4	Toxic
Methyltin tris(2-ethylhexyl mercaptoacetate) 57583-34-3	Toxic

**14. TRANSPORT INFORMATION**

**DOT**

Not regulated

**IATA** Not regulated.

**IMDG** Not regulated

**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**

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

**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**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	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**



**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>		<i>* = Chronic Health Hazard</i>		

**Prepared By** PMC Group  
**Issue Date** 26-Jun-2014  
**Revision Date** 19-Aug-2015

**Revision Note**  
 (M)SDS sections updated 3 14 15

**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**