

**Sterling® E 163 Thixo**

Version 5

Revision Date 06/17/2015

Print Date 06/17/2015

**SECTION 1. IDENTIFICATION**

Product name : Sterling® E 163 Thixo

**Manufacturer or supplier's details**

Company : ELANTAS PDG, INC.  
5200 North 2nd Street  
St. Louis MO 63147

Telephone : (314) 621-5700

Visit our web site : [www.elantas.com](http://www.elantas.com)

E-mail address : [Todd.Thomas@altana.com](mailto:Todd.Thomas@altana.com)

Emergency telephone number : INFOTRAC - 1-800-535-5053

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

Recommended use : Electrical Insulation

Restrictions on use : Refer to Section 15 for any restrictions that may apply

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitisation : Category 1

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

**GHS Label element**

Hazard pictograms :



Signal word : Warning

Hazard statements : H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of

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the workplace.

P280 Wear eye protection/ face protection.

P280 Wear protective gloves.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 + P312 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.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature : Modified Epoxy Resin Solution

**Hazardous components**

Component	CAS-No.	Concentration (%)
Epoxy Resin	25068-38-6	>= 50 - < 51
9-Octadecenoic acid, 12-(oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer	74398-71-3	>= 12 - < 13
Glass, oxide, chemicals	65997-17-3	>= 12 - < 13
Epoxy diluent	17557-23-2	>= 6 - < 7
Epoxy accelerator	75-23-0	>= 2 - < 3
Amorphous silica gel	112945-52-5	>= 2 - < 3
Alkyl (C12, C14) glycidyl ether	-	>= 1 - < 2

**SECTION 4. FIRST AID MEASURES**

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- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

**SECTION 5. FIREFIGHTING MEASURES**

- Unsuitable extinguishing media : High volume water jet
- Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Absorb with inert absorbent material and dispose of in accordance with applicable regulations.

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Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
 Keep in suitable, closed containers for disposal.  
 Absorbent paper or other organic material used for cleaning up resin is a fire hazard, as heat and spontaneous combustion can occur, particularly if the resin was catalyzed. Catalyzed resin can generate hazardous exothermic heat if allowed to polymerize in a mass. All soiled or waste materials must be water soaked, and kept in a closed bin until disposed of.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Avoid formation of aerosol.  
 Do not breathe vapours/dust.  
 Avoid exposure - obtain special instructions before use.  
 Avoid contact with skin and eyes.  
 For personal protection see section 8.  
 Smoking, eating and drinking should be prohibited in the application area.  
 Provide sufficient air exchange and/or exhaust in work rooms.  
 Dispose of rinse water in accordance with local and national regulations.  
 Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
 The chemical reaction that cures mixed epoxy is exothermic (heat generating). If left to cure in a contained mass, such as in a mixing vessel, it can generate enough heat to melt plastic, burn skin or ignite surrounding combustible materials. The larger or thicker the epoxy mass, the more heat generated.
- Conditions for safe storage : Store under conditions specified on the product Technical Data Sheet to maintain product quality.  
 Keep container tightly closed in a dry and well-ventilated place.  
 Observe label precautions.  
 Electrical installations / working materials must comply with the technological safety standards.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Glass, oxide, chemicals	65997-17-3	TWA	5 mg/m <sup>3</sup>	ACGIH

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		(Inhalable fraction)		
		TWA (fibres)	1 fibre/cm3	ACGIH
		TWA (fibres)	1 fibre/cm3	ACGIH
Amorphous silica gel	112945-52-5	TWA	80 mg/m3	OSHA Z-1

**Engineering measures** : Use with adequate ventilation.  
 All application areas should be ventilated in accordance with applicable OSHA regulations. (29 CFR 1910.94)  
 This product contains a particulate(s) that is considered hazardous per OSHA (29 CFR 1910.1200) and is listed in Section III as a precautionary warning.  
 Under normal conditions of use, this product as supplied does not pose a health risk from particulate matter.  
 Physical degradation of the cured product (i.e. sanding, abrading, etc.) may pose a dust hazard.  
 Repeated inhalation of such dust may cause lung injury.  
 Formaldehyde may be released during the curing process.  
 Formaldehyde is a suspected human carcinogen and a skin and respiratory sensitizer. Prolonged or repeated exposure to vapors may result in respiratory impairment and/or liver, kidney or heart effects.

**Personal protective equipment**

**Respiratory protection** : In the case of vapour formation use a respirator with an approved filter.

**Hand protection**  
**Remarks** : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**Eye protection** : Eye wash bottle with pure water  
 Tightly fitting safety goggles  
 Wear face-shield and protective suit for abnormal processing problems.

**Skin and body protection** : impervious clothing  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures** : When using do not eat or drink.  
 When using do not smoke.  
 Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : liquid

**Odour Threshold** : No data available

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pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	Greater than 201 °F (94 °C) Method: Literature Value
Evaporation rate	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative Density/Specific Gravity	:	No data available
Density	:	1.2342 g/cm <sup>3</sup> (77 °F (25 °C))
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Greater than 22 mm <sup>2</sup> /s (104 °F (40 °C))

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.

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Possibility of hazardous reactions : No decomposition if stored and applied as directed.

Conditions to avoid : No data available

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

**Components:****25068-38-6 Epoxy Resin:**

Acute oral toxicity : LD50 (Rat): 11,400 mg/kg  
  
LD50 (Rat, female): > 2,000 mg/kg  
Method: OECD Test Guideline 420  
GLP: yes

Acute inhalation toxicity : LC50 : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): 23,400 mg/kg  
  
LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

**17557-23-2 Epoxy diluent:**

Acute oral toxicity : LD50 (Rat): 4,500 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 2,150 mg/kg

**112945-52-5 Amorphous silica gel:**

Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.1390 mg/l

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Skin corrosion/irritation****Product:**

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Remarks: May cause skin irritation and/or dermatitis.

**Components:****25068-38-6 Epoxy Resin:**

Species: Rabbit

Result: Moderate skin irritation

Species: Rabbit

Exposure time: 4 h

Method: OECD Test Guideline 404

Result: Skin irritation

GLP: yes

**17557-23-2 Epoxy diluent:**

Result: Moderate skin irritation

**112945-52-5 Amorphous silica gel:**

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

**Serious eye damage/eye irritation****Product:**

Remarks: May cause irreversible eye damage.

**Components:****25068-38-6 Epoxy Resin:**

Species: Rabbit

Result: Eye irritation

**17557-23-2 Epoxy diluent:**

Result: Mild eye irritation

**112945-52-5 Amorphous silica gel:**

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: yes

**Respiratory or skin sensitisation****Product:**

Remarks: Causes sensitisation.

**Components:****25068-38-6 Epoxy Resin:**

Test Type: Mouse Local Lymph Node assay (LLNA)

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Species: Mouse  
Method: OECD Test Guideline 429  
Result: May cause sensitisation by skin contact.  
GLP: yes

**Carcinogenicity**

<b>IARC</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>OSHA</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>NTP</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Aspiration toxicity****Components:****25068-38-6 Epoxy Resin:**

No aspiration toxicity classification

**Further information****Product:**

Remarks: No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:****25068-38-6 Epoxy Resin:**

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia (water flea)): 1.7 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): 0.3 mg/l Exposure time: 21 d Test Type: semi-static test

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 Method: OECD Test Guideline 211  
 GLP: yes

**Persistence and degradability**
**Components:**
**25068-38-6 Epoxy Resin:**

 Biodegradability : Result: Not readily biodegradable.  
 Method: OECD Test Guideline 301F  
 GLP: yes

**Bioaccumulative potential**
**Components:**
**25068-38-6 Epoxy Resin:**

 Partition coefficient: n-  
 octanol/water : log Pow: 3.242 (25 °C)  
 pH: 7.1  
 Method: OECD Test Guideline 117  
 GLP: yes

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

 Regulation 40 CFR Protection of Environment; Part 82 Protection of  
 Stratospheric Ozone - CAA Section 602 Class I Substances

 Remarks This product neither contains, nor was manufactured with a  
 Class I or Class II ODS as defined by the U.S. Clean Air Act  
 Section 602 (40 CFR 82, Subpt. A, App.A + B).

 Additional ecological  
 information : No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**
**Disposal methods**

 EPA Hazardous Waste  
 Code(s) : none

 Waste from residues : Do not dispose of waste into sewer.  
 Do not contaminate ponds, waterways or ditches with  
 chemical or used container.  
 Send to a licensed waste management company.  
 Catalyzed resin can generate hazardous exothermic heat if  
 allowed to polymerize in a mass. All soiled or waste materials

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must be water soaked, and kept in a closed bin until disposed of.  
Dispose of the solid mass only if cure is complete and the mass has cooled. Follow federal, state or local disposal regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****International Regulation****IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations****49 CFR**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**CERCLA Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 302 Extremely Hazardous Substances Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

**SARA 302 Extremely Hazardous Substances Reportable Quantity**

Calculated RQ exceeds reasonably attainable upper limit.

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- SARA 311/312 Hazards** : Acute Health Hazard
- SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489):

Polyethylene glycol	25322-68-3	6.4 %
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Non-volatile (Wt) : Refer to the product technical data sheet for VOC information.

**US State Regulations**
**Massachusetts Right To Know**

Epichlorohydrin	106-89-8
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**Pennsylvania Right To Know**

Epoxy Resin	25068-38-6
9-Octadecenoic acid, 12-(oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer	74398-71-3
Glass, oxide, chemicals	65997-17-3
Polyethylene glycol	25322-68-3
Epoxy diluent	17557-23-2
Aluminum oxide	1344-28-1
Epichlorohydrin	106-89-8

**New Jersey Right To Know**

Epoxy Resin	25068-38-6
9-Octadecenoic acid, 12-(oxiranylmethoxy)-, 1,2,3-propanetriyl ester, homopolymer	74398-71-3
Glass, oxide, chemicals	65997-17-3
Polyethylene glycol	25322-68-3
Epoxy diluent	17557-23-2

**New Jersey Trade Secret Registry Number for the product (NJ TSN)** : NOT APPLICABLE

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**California Prop 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

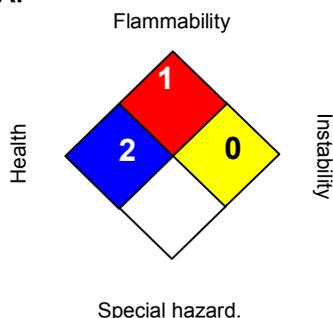
Epichlorohydrin	106-89-8
Phenyl glycidyl ether	122-60-1
Glycidol	556-52-5
1,4-Dioxane	123-91-1
Formaldehyde	50-00-0
Acetaldehyde	75-07-0

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Epichlorohydrin	106-89-8
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**The components of this product are reported in the following inventories:**

TSCA	: We certify that all of the components of this product are either listed on the TSCA Inventory or are not subject to the notification requirements per 40 CFR 720.30(h).
Section 4 / 12(b)	: Not applicable
DSL	: We certify that all of the components of this product are listed on the DSL.

**SECTION 16. OTHER INFORMATION**
**Further information**
**NFPA:**

**HMIS III:**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

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The information provided in this 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

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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.