# alpha

Safety Data Sheet

# Safety Data Sheet

# **Section 1. Identification**

Product name : Solder Alloy 63Sn/37Pb

Bar, Solid Wire, Ribbon, Preforms, Spheres

Vaculoy, Hi-Flo, SMG, HAL, JetFlo, Fry-Lo, Exactalloy, Copperflo, Flo-Temp,

Cleanwave

Product code : 106156
Product type : Solid.

Date of issue/Date of

revision

: May 19 2015.

Manufacturer - Supplier	Telephone no.:	Fax no.	Emergency phone:
ALPHA Global Headquarters 300 Atrium Drive Somerset, New Jersey 08873	Toll Free: (800) 367-5460 Main Phone: (908) 791-3000	(908) 791-3090	DOMESTIC NORTH AMERICA 800-424-9300 INTERNATIONAL, CALL +1 703-527-3887 (collect calls accepted) Alpha Chemtrec# 5591
Alent Hong Kong Limited – Alpha Metals 8/F., Paul Y. Centre, 51 Hung To Road, Kwun Tong, Kowloon, Hong Kong	852-31903110 ext 110	852-2347 5301	852-31903110 ext 110
Alent Japan Co. 480-28 Higashitoyoda, Hiratsuka-shi, Kanagawa, Japan	81-463-53-3333	81-463-53-3311	81-463-53-3333
Alpha Korea.,Ltd 1Ra310,Sihwa Industrial Complex, 40, Okgucheonseo-ro,131 beon-gil, Siheung-Si,Gyeonggi-Do,Korea	82-31-433-1460	Fax: 82-31-432-4900	82-31-433-1451~2
Alent Alpha Metals(Shanghai) CO.,Ltd 2 floor, 5 Building, No.1151 Lianxi Road, Pudong New Area Shanghai 201204 P.R.China	86-21-63900600	86-21-5891 7033	86-21-63900600
Alpha Metals (Taiwan) Inc. No.4, Lane 100, Sec. 2, Nan-Shan Rd., Lu-Chu Hsiang, 33860 Taoyuan, Taiwan	03-3222721	03-3228956	03-3222721
Alent India Private Limited Plot No.16, North Phase, SIDCO Industrial Estate, Ambattur, Chennai- 600098, India	044-26252666	044-26258627	044-26252666
Alpha Metals Singapore 14 Tuas Avenue 10 Singapore 639138	65 68611977	65 68611670	65 68611977
Alent Alpha Metals (Shenzhen) Co.,Ltd. Tang Xia Yong Village, Songgang Town Baoan District, Shenzhen, Peoples Republic of China Postal Code: 518105	86 755 2705 1100	86 755 2755 1314	86 532 83889090

## Page: 2/13

# Section 2. Hazards identification

Classification of the substance or mixture : TOXIC TO REPRODUCTION (Fertility) - Category 1A TOXIC TO REPRODUCTION (Unborn child) - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1

**GHS** label elements

**Hazard pictograms** 





Signal word : Danger

**Hazard statements** : May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

**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. Avoid release to the environment. Do not breathe dust. Do not eat, drink or smoke

when using this product. Wash hands thoroughly after handling.

Response : Collect spillage. Get medical attention if you feel unwell. IF exposed or concerned:

Get medical attention.

**Storage** : Store locked up.

**Disposal** Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Other hazards which do not : None known.

result in classification

# Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
tin	60-70	7440-31-5
lead	30-40	7439-92-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

# Section 4. First aid measures

# **Description of necessary first aid measures**

**Eve contact** 

: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Page: 3/13

# Section 4. First aid measures

Skin contact

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

# Most important symptoms/effects, acute and delayed

# Potential acute health effects

**Eye contact** : No known significant effects or critical hazards. Inhalation : No known significant effects or critical hazards. **Skin contact** : No known significant effects or critical hazards. Ingestion : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:

> reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

> reduced fetal weight increase in fetal deaths skeletal malformations

### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** 

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing

thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

# **Extinguishing media**

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

# Page: 4/13

# Section 5. Fire-fighting measures

Specific hazards arising from the chemical

: This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

: Decomposition products may include the following materials: metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

# Section 6. Accidental release measures

# Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** 

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

## Methods and materials for containment and cleaning up

**Small spill** 

: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

### **Precautions for safe handling**

**Protective measures** 

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

# Page: 5/13

# Section 7. Handling and storage

# Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

# Section 8. Exposure controls/personal protection

# **Control parameters**

### Occupational exposure limits

Ingredient name	Exposure limits	
tin lead	ACGIH TLV (United States, 4/2014).  TWA: 2 mg/m³, (as Sn) 8 hours.  ACGIH TLV (United States, 4/2014). Notes: as Pb  TWA: 0.05 mg/m³, (as Pb) 8 hours.	
Ingredient name	Exposure limits	
tin	TW 勞委會、 勞工作業環境空氣中有害物容許濃度標準、 容 許 濃 度 (Taiwan, 6/2014). Notes: as Sn STEL: 4 mg/m³, (as Sn) 15 minutes. TWA: 2 mg/m³, (as Sn) 8 hours. TW 勞委會、 勞工作業環境空氣中有害物容許濃度標準、 容 許 濃 度 (Taiwan, 6/2014). Notes: as Pb STEL: 0.15 mg/m³, (as Pb) 15 minutes. TWA: 0.05 mg/m³, (as Pb) 8 hours.	
Ingredient name	Exposure limits	
lead	GBZ 2.1 (China, 4/2007).  PC-TWA: 0.05 mg/m³, (as Pb) 8 hours.  Form: dust  PC-TWA: 0.03 mg/m³, (as Pb) 8 hours.  Form: fume	
Ingredient name	Exposure limits	
tin lead	Ministry of Labor (Republic of Korea, 8/2013).  TWA: 2 mg/m³ 8 hours.  Ministry of Labor (Republic of Korea, 8/2013).  TWA: 0.05 mg/m³, (as Pb) 8 hours.	

# Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
tin lead	DOSH USECHH (Malaysia, 4/2000). TWA: 2 mg/m³ 8 hours. DOSH USECHH (Malaysia, 4/2000). Notes: as Pb TWA: 0.05 mg/m³, (as Pb) 8 hours.

Ingredient name	Exposure limits
tin lead	Factories Order (PEL) (Singapore, 2/2006). PEL (long term): 2 mg/m³ 8 hours. ACGIH TLV (United States, 4/2014). Notes:
	as Pb TWA: 0.05 mg/m³, (as Pb) 8 hours.

# Appropriate engineering controls

# : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

# **Environmental exposure** controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **Individual protection measures**

# Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

# Skin protection Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

# **Body protection**

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

# **Respiratory protection**

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### Page: 7/13

# Section 9. Physical and chemical properties

**Appearance** 

**Physical state** : Solid. Color : Gray. Odor : None.

**Odor threshold** : Not available. : Not available. pН **Melting point** : Not available. **Boiling point** : Not available. : Not available. Flash point **Evaporation rate** : Not available. Flammability (solid, gas) : Not available.

Lower and upper explosive

(flammable) limits

: Not available.

Vapor pressure : Not available. Vapor density : Not available. **Relative density** : Not available.

**Solubility** : Insoluble in the following materials: cold water and hot water.

VOC 0 g/l

Partition coefficient: n-

octanol/water

: Not available.

: Not available. **Auto-ignition temperature Decomposition temperature** : Not available. : Not available. **Viscosity** 

# Section 10. Stability and reactivity

Reactivity

: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

**Hazardous decomposition** 

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

products

: metal oxides, toxic. fumes

**Other Hazardous** decomposition products

# Section 11. Toxicological information

**Routes of entry** : Dermal contact. Inhalation. Ingestion.

### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
tin	LD50 Oral	Rat	>2000 mg/kg	-
lead	LD50 Oral	Rat	>5000 mg/kg	-

## **Irritation/Corrosion**

Not available.

#### **Sensitization**

Not available.

**Mutagenicity** 

## Page: 8/13

# Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
lead	-	Subject: Mammalian-Animal	Equivocal

# **Carcinogenicity**

Not available.

### **Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
lead	-	-	Equivocal	Rat - Female	Oral: 520 mg/kg	-
	-	-	Equivocal	Rat - Female	Inhalation: 3 mg/m³	24 hours per day
	Equivocal	-	-	Mouse - Female	Oral: 300 mg/kg	-
	-	Equivocal	-	Mouse	Oral: 4099.2 mg/kg	-

### **Teratogenicity**

Product/ingredient name	Result	Species	Dose	Exposure
lead	Equivocal - Oral	Mammal - species unspecified	2118 mg/kg	-
	Equivocal - Inhalation	Rat	10 mg/m³	24 hours per day

# Specific target organ toxicity (single exposure)

Not available.

# Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
lead	Category 1		nervous system and reproductive organs

# **Aspiration hazard**

Not available.

Information on the likely

routes of exposure

: Not available.

# Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 Ingestion
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

**Inhalation** : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact**: Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

# Page: 9/13

# Section 11. Toxicological information

**Ingestion** : Adverse symptoms may include the following:

reduced fetal weight increase in fetal deaths skeletal malformations

# Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

**Long term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.Mutagenicity : No known significant effects or critical hazards.

**Teratogenicity**: May damage the unborn child.

**Developmental effects**: No known significant effects or critical hazards.

Fertility effects : May damage fertility.

# **Numerical measures of toxicity**

**Acute toxicity estimates** 

Not available.

# Section 12. Ecological information

# **Toxicity**

Product/ingredient name	Result	Species	Exposure
lead	Acute EC50 105 ppb Marine water	Algae - Chaetoceros sp Exponential growth phase	72 hours
	Acute EC50 0.489 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 8000 μg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 530 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 5100 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 0.44 ppm Fresh water	Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 0.25 mg/l Marine water Chronic NOEC 0.03 µg/l Fresh water	Algae - Ulva pertusa Fish - Cyprinus carpio	96 hours 4 weeks

# Persistence and degradability

Not available.

# **Bioaccumulative potential**

Not available.

Alpha is an Alent plc Company

Solder Alloy 63Sn/37Pb

Page: 10/13

# Section 12. Ecological information

**Mobility in soil** 

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Disposal methods** 

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# **Section 14. Transport information**

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

# Section 15. Regulatory information

### **Taiwan**

SDS complies with the Regulation of Labeling and Hazard Communication of Hazardous Chemicals

be a "threat of imminent danger"

**List of chemicals reputed to**: This product contains substances considered to be a "Threat of imminent danger": tin. lead.

**LSHL Article 21** 

: This product contains substances listed on "LSHL Article 21": lead.

Alpha is an Alent plc Company

Solder Alloy 63Sn/37Pb

# Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

Page: 11/13

Taiwan inventory (CSNN) : All components are listed or exempted.

**China** 

SDS complies with the General Rules for Classification and Hazardous Communication of Chemicals GB-13690-2009, GB-30000 series, and GB/T 16438-2008.

China inventory (IECSC) : All components are listed or exempted.

List of Goods banned for Importing

None of the components are listed.

List of Goods banned for Exporting

None of the components are listed.

List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

Republic of Korea

A. Regulation according to ISHA

**ISHA Article 37** : The following components are listed: Lead

**ISHA Article 38** : None of the components are listed.

**Article 2 of Youth** : Not applicable.

**Protection Act on Substances Hazardous** 

to Youth

**Exposure Limits of Chemical Substances and Physical Factors** 

The following components have an OEL:

tin lead

**Exposure Standards** established for Harmful

**Factors** 

Harmful Factors Subject : The following components are listed: Tin, metal; Lead and inorganic compounds

to Work Environment

Measurement

**Harmful Factors Subject** 

to Special Health Check-

up

**Hazardous Substances** 

**Subject to Control** 

: The following components are listed: Lead and its inorganic compounds

: The following components are listed: Tin and compounds; Lead and inorganic

compounds

: The following components are listed: Tin and its compounds; Lead and its inorganic compounds

B. Regulation according to TCCA

**TCCA Toxic chemicals** : Not applicable

**TCCA Observational** 

chemicals

: None of the components are listed.

**TCCA Article 32** 

(Banned)

: None of the components are listed.

**TCCA Article 32** (Restricted)

: The following components are listed: Lead

TCCA Article 17 (TRI)

: The following components are listed: Tin and its compounds; Lead and its

compounds

**Korea inventory** 

: All components are listed or exempted. **Accident Precaution** 

chemicals

: None of the components are listed.

Alpha is an Alent plc Company

Solder Alloy 63Sn/37Pb

# Section 15. Regulatory information

C. Dangerous Materials
Safety Management Act

: Not available.

D. Wastes regulation

: Dispose of contents and container in accordance with all local, regional, national

Page: 12/13

and international regulations.

**Malaysia** 

**Malaysia Inventory (EHS** 

Register)
Singapore

: All components are listed or exempted.

Singapore - hazardous chemicals under government control

None.

International lists
National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

United States : All components are listed or exempted.

# Section 16. Other information

**History** 

Date of issue/Date of

revision

: May 19 2015.

**Date of previous issue** 

: No previous validation.

Version

: 1

Prepared by

: Regulatory Affairs Department

**Enthone Inc** 

350 Frontage Road West Haven, CT 06516 Phone: (203) 934-8611 Fax: (203) 799-8179

enthonemsds@enthone.com

www.enthone.com

Key to abbreviations

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

**UN = United Nations** 

### Procedure used to derive the classification

Classification	Justification
Repr. 1A, H360 (Fertility)	Calculation method
Repr. 1A, H360 (Unborn child)	Calculation method
STOT RE 1, H372	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

References : Not available.

## Page: 13/13

# Section 16. Other information

✓ Indicates information that has changed from previously issued version.

### **Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

4.5b3271

Alpha SDS GHS UN

