SHEET 0709180

SECTION 1: IDENTIFICATION

1.1. Product Identifier
Product Form: Solid.

Product Name: Preforms, Alloy Sn50/Pb32/Cd18, Coated with RS2.1 Flux

CAS No:

Synonyms:

1.2. Intended Use of the Product
Use of the substance/mixture:

1.3. Name, Address, and Telephone of the Responsible Party
Company

ALPHA

Global Headquarters

300 Atrium Drive

Somerset, New Jersey 08873

Phone: (800) 367-5460, (908) 791-3000

1.4. Emergency Telephone Number

Emergency number	800-424-9300, +1 703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)	
ACUTE TOXICITY (oral)	Category 4
CARCINOGENICITY	Category 1A
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

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)	Health Hazard	Exclamation Mark	Environment

Signal Word (GHS-US)	Danger
Hazard Statements (GHS-US)	Harmful if swallowed. May cause cancer. 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 (GHS-US)	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. IF SWALLOWED: Call a POISON CENTER or

|physician if you feel unwell. Rinse mouth.

|Storage:

|Store locked up.

|Disposal:

|Dispose of contents and container in accordance with

|all local, regional, national and international

|regulations.

2.3. Other Hazards

Other Hazards Not Contributing to the Classification: None known.

2.4. Unknown Acute Toxicity (GHS-US)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Name	Product identifier	%	Classification (GHS-US)

Full text of H-phrases: See Section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Tin	7440-31-5	40-50	
Lead	7439-92-1	30-40	
Cadmium (Non-pyrophoric)	7440-43-9	10-20	
[1R-(1?,4a?,10a?)]-1,2,3,4,4a,9,10,10a-octahydro-7-isopropyl-1,4adimethylphenanthren-1-carboxylic acid	1740-19-8	1-10	
Proprietary Rosin/Resin	-	1-10	
Modified Rosin/Resin	-	0.1-1.0	

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General:

First-aid Measures After 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.

First-aid Measures After 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.

First-aid Measures After Eye 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.

First-aid Measures After 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. If necessary, call a poison center or physician. 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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries:

Symptoms/Injuries After Inhalation:

Potential acute health effects: No known significant effects or critical hazards.
Over-exposure signs/symptoms: Adverse symptoms may include the following: Reduced fetal weight increase in fetal deaths skeletal malformations.

Symptoms/Injuries After Skin Contact:

Potential acute health effects: No known significant effects or critical

hazards.
Over-exposure signs/symptoms: Adverse symptoms may include the following:
Reduced
fetal weight increase in fetal deaths skeletal malformations.

Symptoms/Injuries After Eye Contact:

Potential acute health effects: No known significant effects or critical
hazards.
Over-exposure signs/symptoms: No specific data.

Symptoms/Injuries After Ingestion:

Potential acute health effects: Harmful if swallowed.

Over-exposure signs/symptoms: Adverse symptoms may include the following:
Reduced
fetal weight increase in fetal deaths skeletal malformations.

Chronic Symptoms:

4.3. Indication of Any Immediate Medical Attention and Special Treatment
Needed
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.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Use an extinguishing agent suitable for the

surrounding fire.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: 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.

Explosion Hazard: Decomposition products may include the following materials:

Carbon dioxide carbon monoxide metal oxide/oxides.

Reactivity:

5.3. Advice for Firefighters
Precautionary Measures Fire:

Firefighting Instructions: 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.

Protection During Firefighting: 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

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures:

6.1.1. For Non-emergency Personnel
Protective Equipment:

Emergency Procedures: 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.

6.1.2. For Emergency Responders
Protective Equipment:

Emergency Procedures: If specialized 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 nonemergency personnel".

6.2. 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.

6.3. Methods and Material for Containment and Cleaning Up

For Containment:

Methods for 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. Place spilled material in a designated, 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.

6.4. Reference to Other Sections
See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Additional Hazards When Processed: 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.

Hygiene Measures: 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.

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.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures:

Storage Conditions: 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.

7.3. Specific End Use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

Occupational exposure limits:

Ingredient name	Exposure limits
Tin	
Lead	

Cadmium (Non-pyrophoric)

OSHA PEL (United States, 9/2005).

TWA: 2 mg/m³ 8 hours.

ACGIH TLV (United States, 4/2014).

TWA: 2 mg/m³, (as Sn) 8 hours.

NIOSH REL (United States, 10/2013).

TWA: 2 mg/m³, (as Sn) 10 hours.

OSHA PEL (United States, 5/2005).

TWA: 0.05 mg/m³ 8 hours.

ACGIH TLV (United States, 4/2014). Notes: as Pb

TWA: 0.05 mg/m³, (as Pb) 8 hours.

OSHA PEL (United States, 2/2013). Notes: as Pb

TWA: 50 ?g/m³, (as Pb) 8 hours.

NIOSH REL (United States, 10/2013). Notes: See Appendix C -

Supplemental Exposure Limits Note: The REL and PEL also apply

to other lead compounds (as Pb).

TWA: 0.05 mg/m³ 10 hours

OSHA PEL Z2 (United States, 2/2013).

TWA: 0.2 mg/m³ 8 hours. Form: Dust

CEIL: 0.6 mg/m³ Form: Dust

CEIL: 0.3 mg/m³ Form: Fume

TWA: 0.1 mg/m³ 8 hours. Form: Fume

ACGIH TLV (United States, 4/2014).

TWA: 0.01 mg/m³, (as Cd) 8 hours. Form: Inhalable fraction

ACGIH TLV (United States, 4/2014). Notes: as Cd

TWA: 0.002 mg/m³, (as Cd) 8 hours. Form: Respirable fraction

OSHA PEL (United States, 2/2013). Notes: as Cd

TWA: 5 ?g/m³, (as Cd) 8 hours.

8.2. Exposure Controls

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.
Personal Protective Equipment	
Materials for Protective Clothing	
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.
Eye 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 sideshields.
Skin and Body Protection	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.
Thermal Hazard Protection	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	Solid.
Appearance	

Odor	Not available.
Odor Threshold	Not available.
pH	Not available.
Relative Evaporation Rate (butylacetate=1)	Not available.
Melting Point	Not available.
Freezing Point	Not available.
Boiling Point	Not available.
Flash Point	Not available.
Auto-ignition Temperature	Not available.
Decomposition Temperature	Not available.
Flammability (solid, gas)	Not available.
Vapor Pressure	Not available.
Relative Vapor Density at 20 °C	
Relative Density	1
Specific Gravity	
Solubility	Partially soluble in the following materials: cold water and hot water.
Partition coefficient:	Not available.

n-octanol/water	
Viscosity	Not available.
Lower Flammable Limit	Not available.
Upper Flammable Limit	Not available.

9.2. Other Information

VOC: 10.2 g/l

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

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

10.2 Chemical Stability

The product is stable.

10.3 Possibility of Hazardous Reactions

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

10.4 Conditions to Avoid

10.5 Incompatible Materials

Highly reactive or incompatible with the following materials: alkalis and moisture

Reactive or incompatible with the following materials: acids Slightly reactive or incompatible with the following materials: oxidizing materials and reducing materials.

10.6 Hazardous Decomposition Products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity:

Skin Corrosion/Irritation:

Serious Eye Damage/Irritation:

Respiratory or Skin Sensitization: Not available.

Germ Cell Mutagenicity: No known significant effects or critical hazards.

Carcinogenicity: No applicable toxicity data.

Reproductive Toxicity:

Specific Target Organ Toxicity (Single Exposure): Not available.

Specific Target Organ Toxicity (Repeated Exposure):

Aspiration Hazard: Not available.

Symptoms/Injuries After Inhalation: Adverse symptoms may include the following:

Reduced fetal weight increase in fetal deaths skeletal malformations.

Symptoms/Injuries After Skin Contact: Adverse symptoms may include the following:
Reduced fetal weight increase in fetal deaths skeletal malformations.

Symptoms/Injuries After Eye Contact: No specific data.

Symptoms/Injuries After Ingestion: Adverse symptoms may include the following:

Reduced fetal weight increase in fetal deaths skeletal malformations.

Chronic Symptoms:

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Product/ingredient name

Result

Species

Exposure

Lead

Cadmium (Non-pyrophoric)

[1 R-(1 a,4a(3,1 Oaa)]-1,2,3,4,4a,

9,10,10a-octahydro-7-isopropyl-1,4a-dimethylphenanthren-1 -carboxylic acid

Proprietary Rosin/Resin

Acute EC50 105 ppb Marine water

Acute EC50 0.489 mg/l Marine water Acute EC50 8000 pg/l Fresh water Acute LC50
530
pg/l Fresh water

Acute LC50 5100 pg/l Fresh water Acute LC50 0.44 ppm Fresh water

Chronic NOEC 0.25 mg/l Marine water Chronic NOEC 0.03 pg/l Fresh water

Acute EC50 97 pg/l Fresh water

Acute EC50 0.095 mg/l Marine water Acute EC50 200 pg/l Fresh water

Acute EC50 24.4 pg/l Fresh water

Acute LC50 0.072 pg/l Marine water Acute LC50 2 pg/l Fresh water

Chronic NOEC 2 pg/l Fresh water

Chronic NOEC 0.02 pg/l Fresh water

Acute LC50 2470 pg/l Fresh water

Acute LC50 700 pg/l Fresh water

LC50 60.3 mg/l

Algae - Chaetoceros sp. -Exponential growth phase

Algae - Ulva pertusa

Aquatic plants - Lemna minor

Crustaceans - Ceriodaphnia

reticulata _

Daphnia - Daphnia pulex

Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling)

Algae - Ulva pertusa

Fish - Cyprinus carpio

Algae - Pseudokirchneriella subcapitata - Exponential growth phase

Algae - Ulva pertusa

Aquatic plants - Lemna minor

Daphnia - Daphnia magna -

Neonate

Crustaceans - Amphipoda - Adult

Fish - Cyprinus carpio

Algae - Parachlorella kessleri -

Exponential growth phase

Fish - Cyprinus carpio

Daphnia - Daphnia magna -

Neonate

Fish - Esox lucius

Fish

72 hours

96 hours

4 days

48 hours

48 hours

96 hours

96 hours

4 weeks

72 hours

96 hours

4 days

48 hours

48 hours

96 hours

72 hours

4 weeks

48 hours

96 hours

96 hours

12.2. Persistence and Degradabilty

Not available.

12.3. Bioaccumulative Potential

Product/ingredient name

LogPow

BCF

Potential

[1R-(1?,4a?,10a?)]-1,2,3,4,4a,

9,10,10a-octahydro-7-

isopropyl-1,4adimethylphenanthren-

1- carboxylic acid

4.8

131.83

low

Proprietary Rosin/Resin

3.42

-

low

12.4. Mobility in Soil

Soil/water partition coefficient (KOC): Not available.

12.5. Other Adverse Effects

No known significant effects or critical hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: 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 non-recyclable 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.

Additional Information:

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name	Not regulated	
Hazard Class		<PICTOGRAM PHRASE>
Identification Number		
Label Codes		
ERG Number		

14.2 In Accordance with IMDG

Proper Shipping Name	Not regulated	
Hazard Class		
Identification Number		
Label Codes		<PICTOGRAM PHRASE>
ntification Of The		
Substance/m		
EmS-No. (Fire)		
EmS-No. (Spillage)		

14.3 In Accordance with IATA

Proper Shipping Name |Not regulated

Identification Number| |<PICTOGRAM PHRASE>

Hazard Class | |

Label Codes | |

ntification Of The | |

Substance/m | |

ERG Code (IATA) |

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations
<COMPONENT>

SARA 302/304:

Composition/information on ingredients: No products were found.

SARA 313:

Product name

CAS number

%

Form R - Reporting

requirements

Lead

Cadmium (Non-pyrophoric)

7439-92-1

7440-43-9

30-40

10-20

Supplier notification

Lead

Cadmium (Non-pyrophoric)

7439-92-1

7440-43-9

30-40

10-20

SARA 313 notifications must not be detached from the SDS and any copying and

redistribution of the SDS shall include

copying and redistribution of the notice attached to copies of the SDS

subsequently redistributed.

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Delayed (chronic) health hazard
Toxic Substances Control Act (TSCA) rule	TSCA 5(a)2 proposed significant new use
	(SNUR): No products were found.
	TSCA 5(a)2 final significant new use rule
	(SNUR): No products were found.
	TSCA 12(b) one-time export notification: No
	products were found.
	TSCA 12(b) annual export notification: lead
	All components are listed or exempted.

15.2 US State Regulations

<COMPONENT>

California Prop. 65: WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date	June 15 2015
Other Information	This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

	Classification	Justification
--		
----	Acute Tox. 4, H302	Calculation method
--		
----	Carc. 1A, H350	Calculation method
--		
----	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

Grainger disclaimer.

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