SAFETY DATA SHEET

Alloy Sn95-Ag5 RMA 258-15R



Section 1. Identification

GHS product identifier

: Alloy Sn95-Ag5 RMA 258-15R

Reference number

: GHS003

Other means of

identification

: For all Sn-Ag alloys RMA 258-15R

Product type

: Solid. [Solder Paste]

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details

: AIM

9100 Henri Bourassa East

Montreal, QC H1E 2S4 (514) 494-2000

In the United States:

AIM

25 Kenney Drive Cranston, RI 02920 (800) CALL-AIM

In México

AIM Soldadura de México Circuito Interior Norte # 460 Parque Industrial Salvarcar Ciudad Juárez, Chih. (656) 630-0032

Emergency telephone number (with hours of

operation)

: INFOTRAC

North America: (800) 535-5053 International: (352) 323-3500

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1

GHS label elements

Hazard pictograms



Signal word

Hazard statements

: May cause an allergic skin reaction.

Precautionary statements

Prevention

: Wear protective gloves. Avoid breathing dust. Contaminated work clothing must not be allowed out of the workplace.

Response

: Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage

: Not applicable.

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Section 2. Hazards identification

Disposal

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

Hazards not otherwise

: None known.

classified

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: For all Sn-Ag alloys RMA 258-15R

Ingredient name	%	CAS number
Tin	≥75 - ≤90	7440-31-5
Silver	≤5	7440-22-4
Rosin	≤5	8050-09-7
Amine Decanoic Acid Salt	≤1	-

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

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 adverse health effects persist or are severe. 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.

Skin contact

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. 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 adverse health effects persist or are severe. 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 contactInhalationNo known significant effects or critical hazards.No known significant effects or critical hazards.

Skin contact: May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

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Section 4. First aid measures

Inhalation

: No specific data.

Skin contact

: Adverse symptoms may include the following:

irritation redness

Ingestion

: No specific data.

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. 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.

Specific hazards arising from the chemical

: No specific fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials: carbon dioxide

carbon monoxide 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 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".

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).

Methods and materials for containment and cleaning up

Small spill

: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. 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.

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. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Tin	ACGIH TLV (United States, 3/2020).
	TWA: 2 mg/m³, (as Sn) 8 hours. Form:
	Inhalable fraction
	NIOSH REL (United States, 10/2016).
	TWA: 2 mg/m³ 10 hours.
	OSHA PEL (United States, 5/2018).
	TWA: 2 mg/m³, (as Sn) 8 hours.
Silver	ACGIH TLV (United States, 3/2020).
	TWA: 0.1 mg/m³ 8 hours. Form: Dust and
	fumes
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 0.01 mg/m³, (as Ag) 8 hours.
	OSHA PEL (United States, 5/2018).
	TWA: 0.01 mg/m³, (as Ag) 8 hours.
	NIOSH REL (United States, 10/2016).
	TWA: 0.01 mg/m³, (as Ag) 10 hours. Form:
	METAL DUST AND SOLUBLE
Rosin	ACGIH TLV (United States, 3/2020). Skin
	sensitizer. Inhalation sensitizer.
Amine Decanoic Acid Salt	None.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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Section 8. Exposure controls/personal protection

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. Contaminated work clothing should not be allowed out of the workplace. 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 sideshields.

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

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [Solder Paste]

Color Not available. Odor : Not available. **Odor threshold** : Not available. : Not available. **Melting point** : Not available. **Boiling point** : Not available. Flash point : Not applicable. Not available. **Evaporation rate** Flammability (solid, gas) : Not available. Lower and upper explosive : Not applicable.

(flammable) limits

Vapor pressure : Not available. Vapor density : Not applicable. **Relative density** : Not available. Solubility Not available. Solubility in water : Not available.

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Section 9. Physical and chemical properties

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature : Decomposition temperature :

Not applicable.Not available.Not applicable.

Viscosity Flow time (ISO 2431)

: Not available.

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.

Conditions to avoid

: No specific data.

Incompatible materials

: No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Rosin	LD50 Oral	Rat	7600 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Amine Decanoic Acid Salt	None.	4	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

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Section 11. Toxicological information

Aspiration hazard

Not available.

Information on the likely

: Not available.

routes of exposure

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

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 : Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

Carcinogenicity
 No known significant effects or critical hazards.
 Mutagenicity
 No known significant effects or critical hazards.
 Teratogenicity
 No known significant effects or critical hazards.
 Developmental effects
 No known significant effects or critical hazards.
 Fertility effects
 No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Silver	Acute EC50 1.4 µg/l Marine water Acute EC50 0.24 µg/l Fresh water	Algae - Chroomonas sp. Daphnia - Daphnia magna	4 days 48 hours
	Acute LC50 11 μg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 2.13 μg/l Fresh water Chronic NOEC 5 mg/l Marine water	Fish - Pimephales promelas Algae - Glenodinium halli	96 hours 72 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Silver	-	70	low
Rosin	1.9 to 7.7	-	high

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 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.

Section 14. Transport information

	<u> </u>					
	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

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Alloy Sn95-Ag5 RMA 258-15R **Section 14. Transport information Additional** Reportable information quantity 22857.1 lbs / 10377.1 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation

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.

Transport in bulk according: Not available.

to IMO instruments

Section 15. Regulatory information

requirements.

Clean Air Act Section 112 : Listed

(b) Hazardous Air **Pollutants (HAPs)**

Clean Air Act Section 602 : Not listed

Class I Substances

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

(Precursor Chemicals)

: Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

State regulations

Massachusetts : The following components are listed: TIN; SILVER

New York : The following components are listed: Silver

: The following components are listed: TIN; SILVER **New Jersey**

: The following components are listed: TIN; SILVER COMPOUNDS; ROSIN CORE **Pennsylvania**

SOLDER PYROLYSIS PRODUCTS

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

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Section 15. Regulatory information

Not listed

International lists

National inventory

Australia : Not determined.
Canada : Not determined.
China : Not determined.
Europe : Not determined.

Japan : Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

Malaysia : Not determined

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : Not determined.

Turkey : Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification	
SKIN SENSITIZATION - Category 1	Calculation method	

History

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Section 16. Other information

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 = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

References

: Not available.

▼ 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 above-named 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.

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