



# SAFETY DATA SHEET

**MATERION**

## 1. Identification

**Product identifier** Tin Product

**Other means of identification**

SDS number G16

CAS number 7440-31-5

Synonyms TIN, ELEMENTAL

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Materion Advanced Materials

**Address** 6070 Parkland Boulevard  
Mayfield Heights, OH 44124  
United States

**Telephone** EH&S 1.216.383.4019

**Website** www.materion.com

**E-mail** ehs@materion.com

**Contact person** Theodore Knudson

**Emergency phone number** See Section 16.

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

#### Label elements

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** Not available.

**Precautionary statement**

**Prevention** Not available.

**Response** Not available.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

#### Substances

Chemical name	Common name and synonyms	CAS number	%
Tin Product	TIN, ELEMENTAL	7440-31-5	100

## 4. First-aid measures

**Inhalation** Call a physician if symptoms develop or persist.

**Skin contact** Get medical attention if irritation develops and persists.

**Eye contact** Get medical attention if irritation develops and persists.

Ingestion	Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	None known.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

Suitable extinguishing media	Powder. Dry sand. Use methods for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	This product is not flammable.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate personal protective equipment.
Methods and materials for containment and cleaning up	Collect spillage.
Environmental precautions	Collect spillage.

## 7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Not available.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
Tin Product (CAS 7440-31-5)	PEL	2 mg/m <sup>3</sup>

#### US. ACGIH Threshold Limit Values

Material	Type	Value	Form
Tin Product (CAS 7440-31-5)	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.

#### US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Tin Product (CAS 7440-31-5)	TWA	2 mg/m <sup>3</sup>

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	This material does not have established exposure limits.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Wear gloves to prevent metal cuts and skin abrasions during handling.

**Other** Use personal protective equipment as required.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

### Appearance

**Physical state** Solid.

**Form** Solid.

**Color** Silver-white.

**Odor** None.

**Odor threshold** Not applicable.

**pH** Not applicable.

**Melting point/freezing point** 449.42 °F (231.9 °C)

**Initial boiling point and boiling range** Not applicable.

**Flash point** Not applicable.

**Evaporation rate** Not applicable.

**Flammability (solid, gas)** None known.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not applicable.

**Flammability limit - upper (%)** Not applicable.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not applicable.

**Vapor density** Not applicable.

**Relative density** Not applicable.

### Solubility(ies)

**Solubility (water)** Insoluble

**Partition coefficient (n-octanol/water)** Not applicable.

**Auto-ignition temperature** Not applicable.

**Decomposition temperature** Not applicable.

**Viscosity** Not applicable.

### Other information

**Density** 7.26 g/cm<sup>3</sup> estimated

**Dynamic viscosity** Not applicable.

**Dynamic viscosity temperature** Not applicable.

<b>Explosive properties</b>	Not explosive.
<b>Kinematic viscosity</b>	Not applicable.
<b>Molecular formula</b>	Sn
<b>Molecular weight</b>	118.69 g/mol
<b>Oxidizing properties</b>	Not oxidizing.
<b>Surface tension</b>	Not applicable.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Chlorine.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Not likely, due to the form of the product.
<b>Skin contact</b>	Not likely, due to the form of the product.
<b>Eye contact</b>	Not likely, due to the form of the product.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	None known.
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### Information on toxicological effects

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Not relevant, due to the form of the product.
<b>Serious eye damage/eye irritation</b>	Not likely, due to the form of the product.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	Not a skin sensitizer.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.

**Chronic effects** No data recorded.

## 12. Ecological information

**Ecotoxicity** Contains a substance which causes risk of hazardous effects to the environment.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

## 15. Regulatory information

### US federal regulations

#### Toxic Substances Control Act (TSCA)

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

#### SARA 313 (TRI reporting)

Not regulated.

## Other federal regulations

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

## US state regulations

### California Proposition 65

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Tin Product (CAS 7440-31-5)

## 16. Other information, including date of preparation or last revision

**Issue date** 12-10-2018

**Revision date** 07-13-2021

**Version #** 02

**Further information** Transportation Emergency  
Call Chemtrec at:  
International: 703.741.5970  
Spain: 900.868.538  
Switzerland: 0800.564.402

**Other information** Revised information in Section 16.

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