

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

SECTION 1: Identification

1.1. Product identifier

Trade name/designation:

INDALLOY 159 SOLDER ALLOY

Other means of identification:

SDS-IN 039-159

UFI:

J030-10UD-M00A-78HQ

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

Use of the substance/mixture:

Welding, soldering, and flux products

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Indium Corporation of America

HQ

301 Woods Park Dr Ste 301

13323 Clinton, NY

United States

Telephone: (315) 853-4900

Telefax: (315) 853-1000

E-mail: EHS_Compliance@indium.com

Website: <https://www.indium.com>

Pre-supplier/manufacturer:

Indium Advanced Materials GmbH

Fragnerstrasse 4

84034 Landshut

Germany

Telephone: +49 871 4309500

E-mail: EHS_Compliance@indium.com

Website: <http://www.indium.com>

E-mail (competent person): EHS_Compliance@indium.com

1.4. Emergency telephone number

USA, 24h: 1 (800) 424-9300

China, 24h: +86 4001-204937

Outside USA:, 24h: +1 (703) 527-3887

Poland, 24h: 48-223988029

United Kingdom, 24h: 44-870-8200418 and 44-2038073798

France, 24h: 33-975181407

Hungary, 24h: 36-18088425

Italy (Emergenza tossicologica), 24h: +34 91 52 04 20

Portugal, 24h: 351-308801773

Romania, 24h: 40-37-6300026

Norway, 24h: +(47)-21930678

Sweden, 24h: +(46)-852503403

Taiwan, 24h: 00801-14-8954

Costa Rica (CHEMTREC), 24h: +506-40003869

Costa Rica (National Poison Center), 24h: +506 2223 1028

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

Vietnam (Poison Center), 24h: +84 (0)4 912620 876

Austria, 24h: +(43)-13649237

Czech Republic, 24h: +420 224 919 293 (+420 224 915 402)

Italy (Poison Control Centre), 24h: +39 02 6610 1029

SECTION 2: Hazard(s) Identification

2.1. Classification according to 29 CFR Part 1910.1200

Hazard classes and hazard categories	Hazard statements
Reproductive toxicity (<i>Effects on or via lactation</i>)	May cause harm to breast-fed children.
Reproductive toxicity (1A)	May damage fertility or the unborn child.
Carcinogenicity (2)	Suspected of causing cancer.
Specific target organ toxicity - Repeated exposure (1)	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage/eye irritation (2A)	Causes serious eye irritation.
Specific target organ toxicity - Single exposure (3)	May cause respiratory irritation.

2.2. Labelling according to 29 CFR Part 1910.1200

Hazard pictograms:



GHS07

Exclamation mark



GHS08

Health hazard

Signal word: Danger

Hazard statements:

Hazard statements for health hazards
Causes serious eye irritation.
May cause respiratory irritation.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause harm to breast-fed children.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements:

Precautionary statements Prevention
Do not breathe dust or mist.
Avoid contact during pregnancy/while nursing.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements Response
IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Special rules for supplemental label elements for certain mixtures:

37.0 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).

37.0 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name	Concentration
CAS No.: 7439-92-1	lead	90 - ≤ 95 weight-%
CAS No.: 7440-31-5	tin	5 - ≤ 10 weight-%

SECTION 4: First-aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:

Provide fresh air. Get medical advice/attention if you feel unwell.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing.

After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion:

Rinse mouth. Let 1 glass of water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider. First aider: Pay attention to self-protection!

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

No data available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media:

none

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

Hazardous combustion products:

In case of fire: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Collect spillage. Measures to prevent aerosol and dust generation Wet clean or vacuum up solids.

For cleaning up:

Water (with cleaning agent)

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Avoid contact during pregnancy/while nursing.

Measures to prevent aerosol and dust generation:

Dust should be exhausted directly at the point of origin.

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Storage class (TRGS 510, Germany): 6.1D - Non-combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects

7.3. Specific end use(s)

No data available

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
IDLH (US) from Jan 1, 1994	lead CAS No.: 7439-92-1	① 100 Pb/m ³
BOELV (EU) from Apr 8, 2024	lead CAS No.: 7439-92-1	① 0.03 mg/m ³ ⑤ (inhalable fraction)
Québec (CA) from Mar 1, 2013	lead CAS No.: 7439-92-1	① 0.05 mg/m ³
Alberta (CA) from Oct 25, 2022	lead CAS No.: 7439-92-1	① 0.05 mg/m ³
BC (CA) from Oct 25, 2022	lead CAS No.: 7439-92-1	① 0.05 mg/m ³ ⑤ Elemental 2B; R \nOther inorganic 2A; R
Ontario (CA) from Oct 25, 2022	lead CAS No.: 7439-92-1	① 0.05 mg/m ³ ⑤ (may be absorbed through the skin) Skin, designated Substance Reg.490/ 09)
MX from Oct 25, 2022	lead CAS No.: 7439-92-1	① 0.05 mg/m ³
OSHA (US) from Oct 25, 2022	lead CAS No.: 7439-92-1	① 0.05 mg/m ³
ACGIH (US) from Oct 25, 2022	lead CAS No.: 7439-92-1	① 0.05 mg/m ³
NIOSH (US)	lead CAS No.: 7439-92-1	① 0.05 mg/m ³
IOELV (EU)	tin CAS No.: 7440-31-5	① 2 mg/m ³
Ontario (CA)	tin CAS No.: 7440-31-5	① 2 mg/m ³ ⑤ (metal and compounds, inorganic)
ACGIH (US) from Jan 1, 2019	tin CAS No.: 7440-31-5	① 2 mg/m ³ ⑤ (metal and compounds, inorganic; inhalable fraction)
Alberta (CA)	tin CAS No.: 7440-31-5	① 2 mg/m ³ ⑤ (metal)
Alberta (CA)	tin CAS No.: 7440-31-5	① 2 mg/m ³ ⑤ (oxides and compounds, inorganic)
BC (CA) from Jul 10, 2024	tin CAS No.: 7440-31-5	① 2 mg/m ³ ⑤ (inhalable fraction)
MX	tin CAS No.: 7440-31-5	① 2 mg/m ³ ② 4 mg/m ³ ⑤ (compuestos, inorgánico; calculado como estaño)
IDLH (US) from Jan 1, 1994	tin CAS No.: 7440-31-5	① 100 Sn/m ³
Québec (CA) from Mar 14, 2024	tin CAS No.: 7440-31-5	① 2 mg/m ³ ⑤ (Aerosol, inhalable fraction)
OSHA (US)	tin CAS No.: 7440-31-5	① 2 mg/m ³

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
NIOSH (US)	tin CAS No.: 7440-31-5	① 2 mg/m ³

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① Parameter ② Test material ③ Time of sampling: ④ Remark
ACGIH-BEI (US) from Jan 1, 2017	lead CAS No.: 7439-92-1	200 µg/L	① Lead in blood ② blood ③ no restriction
BLV (EU) from Apr 8, 2024	lead CAS No.: 7439-92-1	30 µg/100mL	① Lead ② blood ③ no restriction
BLV (EU) from Jan 1, 2029	lead CAS No.: 7439-92-1	15 µg/100mL	① Lead ② blood ③ no restriction

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Exhaust ventilation is necessary to control airborne levels and to keep exposures as low as possible.

8.2.2. Personal protection equipment

Eye/face protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection:

Tested protective gloves must be worn EN ISO 374 Suitable material: Breakthrough time: min In the case of wanting to use the gloves again, clean them before taking off and air them well.

Respiratory protection:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: solid

Colour: metallic

Odour: not determined

flammability: No

Safety relevant basis data

Parameter	Value	① Method ② Remark
pH	<i>not applicable</i>	
Melting point	= 302 °C = 575.6 °F	

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

Parameter	Value	① Method ② Remark
Freezing point	275 °C 527 °F	
Initial boiling point and boiling range	<i>not applicable</i>	
Decomposition temperature	<i>not applicable</i>	
Flash point	<i>not applicable</i>	
Evaporation rate	<i>not applicable</i>	
Auto-ignition temperature	<i>not applicable</i>	
Upper/lower flammability or explosive limits	<i>not applicable</i>	
Vapour pressure	<i>No data available</i>	
Density	10.75 g/cm ³	
Bulk density	<i>No data available</i>	
Water solubility	practically insoluble	

particle characteristics:

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product itself does not burn.

10.2. Chemical stability

Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

Not established

10.4. Conditions to avoid

Not established

10.5. Incompatible materials

solutions and acids, e.g. contact acid

10.6. Hazardous decomposition products

In case of fire: Gases/vapours, toxic

SECTION 11: Toxicological information

Acute oral toxicity:

Harmful if swallowed.

Acute dermal toxicity:

Based on available data, the classification criteria are not met.

Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

Serious eye damage/irritation:

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity:

Suspected of causing cancer.

Reproductive toxicity:

May damage fertility or the unborn child. May cause harm to breast-fed children.

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

STOT-single exposure:

Based on available data, the classification criteria are not met.

STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:

Based on available data, the classification criteria are not met.

Additional information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

tin CAS No.: 7440-31-5
Results of PBT and vPvB assessment: —
lead CAS No.: 7439-92-1
Results of PBT and vPvB assessment: —

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container to an appropriate recycling or disposal facility.

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant	not relevant	not relevant	not relevant
14.4. Packing group			
not relevant	not relevant	not relevant	not relevant
14.5. Environmental hazards			
not relevant	not relevant	not relevant	not relevant
14.6. Special precautions for user			
not relevant	not relevant	not relevant	not relevant

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

[US] National regulations

California Proposition 65 list of chemicals

 **WARNING:** This product can expose you to chemicals including [lead] which is known to the State of California to cause cancer, and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Other regulations, restrictions and prohibition regulations

All ingredients are listed on the EPA's TSCA Inventory. This product does not contain any U.S. TSCA PBT chemicals.

[MX] National regulations

Other regulations, restrictions and prohibition regulations

This product SDS includes exposure information in accordance with Mexican regulations NOM-018-STPS-2015 and NOM-010-STPS-2014.

15.2. Chemical Safety Assessment

No data available

15.3. Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: No chemicals contained.

SECTION 16: Other information, including date of preparation or last revision

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM	American Society for Testing and Materials
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC ₅₀	Effective Concentration 50%
EN	European Standard
ES	Exposure scenario
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Standards Organisation
LC ₅₀	Lethal (fatal) Concentration 50%
LD ₅₀	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OEL	Threshold Limit Value
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic

SAFETY DATA SHEET

acc. to 29 CFR 1910.1200 App D

Revision date: May 8, 2025

Print date: Oct 14, 2025

Version: 2.2



INDALLOY 159 SOLDER ALLOY

PEL Permissible Exposure Limit
PNEC Predicted No Effect Concentration
REACH Registration, Evaluation and Authorization of Chemicals
RID Dangerous goods regulations for transport by rail
SVHC substances of very high concern
TRGS Technische Regeln für Gefahrstoffe
UN United Nations

16.3. Key literature references and sources for data

Substance name	Type	source of supply
lead CAS No.: 7439-92-1	LD ₅₀ oral; LC ₅₀ ; EC ₅₀ ; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/

16.4. NFPA Hazard codes

No data available

16.5. Relevant H-phrases (number and full text)

Hazard statements	
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H362	May cause harm to breast-fed children.
H372	Causes damage to organs through prolonged or repeated exposure.

16.6. Training advice

No data available

16.7. Additional information

No data available