

SAFETY DATA SHEET

| | н 1 - 1 | 111 | 1 | , , , | 111 | | 1 1 1 | : • • | Date | Accesse | ed: 25/08 | 3/2023 |
|--|---|--|-----------------------------------|----------|------------|---------|-----------|---------|----------|----------|-----------|--------|
| * | 1 - 1 1 | | | н н Н | | ' | 1 I 1 | | Dat | e Revise | ed: 21/01 | 1/2023 |
| | : | | | 1 | · · · , | | : | | | 1 | · · · . | |
| SEC | | I 1. IC | DENT | | | | | | | | | |
| | | | | | ; · · · | | | 111 | 1 | | ; · · · | |
| | uct Nam | - | | | ' | | | | | | | ' |
| CAS | #: 7440-7 | 74-6 | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | fic resea | | | | · · . | |
| Relev | | tified u | | | | | | | | | | |
| Relev Supp | vant iden | itified u | ses of t | the subs | stance: { | Scienti | fic resea | rch and | l develo | opment | | |
| Relev Supp Stanf | vant iden lier deta | ntified u ils: nced Ma | ses of t | the subs | stance: { | Scienti | | rch and | l develo | opment | | |
| Rele∖ Supp Stanf E-ma | v ant iden I lier deta ord Adva il: sales@ | i ls: nced Ma)samate | ses of t aterials crials.co | the subs | stance: \$ | Scienti | fic resea | rch and | l develo | opment | ··. | |
| Relev Supp Stanf E-ma Tel: (! | v ant iden I lier deta ord Adva il: sales@ | ils: nced Ma)samate -8904 | ses of t aterials erials.co | the subs | stance: \$ | Scienti | fic resea | rch and | l develo | opment | ··. | |

Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 The substance is not classified as hazardous to health or the environment according to the CLP regulation. Hazards not otherwise classified No data available Label elements Labelling according to Regulation (EC) No 1272/2008 N/A Hazard pictograms

| | 1 1 1 | | | 1 1 1 | | | | | | | | |
|-------------------------|-------------|----------|-------------|--------------|--------------|----------|------------|-----|----------|------------------|---|---|
| N/A | ' | ' | | ¹ | ¹ | н н н | | 1 | н н н | | ' | |
| Signal word | | | | | . ' | | | . ' | | | | : |
| N/A | ı | ı | | , | , | | | ı | | | ı | |
| Hazard statemen N/A | its ;··· | 1 | 1 1 - 1 | 1 1 1 1 | | | 1 1 1 1 | | | 111 | | |
| WHMIS classifica | ation | ' | н н н | ' | | н н н | ' | ' | н н Н | | ' | |
| Not controlled | | | | · · . | | | | | | | | |
| Classification sys | stem | | | | | | | | | | | |
| HMIS ratings (sca | ale 0-4 |) | | | | | | | | | | |
| (Hazardous Mate | eriais io | entifica | ation Syste | em)HE | ALIH | | | | | | | |
| FIRE | | | | | | 1 | | ' | 1 1 | 1.1 ¹ | | |
| REACTIVITY | ··. | | | · · . | | | · · . | | - | · · . | | |
| 0 | | | | | | | | | | | | |
| 0. | | `: | | | | | | 1 | | | 1 | |
| 0 Health (acute effe | | 0 | | ¹ | | | | | | | | |
| Flammability = 0 | · · · | | | · · . | | | · · . | | | · · . | | |
| Physical Hazard | = 0 | | | | | | | | | | | |
| Other hazards | | | | | | | | | | 111 | | |
| Results of PBT a | nd vPv | B asse | essment | | | | | ' | 1 I | | ' | |
| PBT: | | | | | | | | | | | | |
| N/A | · · . | | | | | 1 | | . ' | | 11 | | |
| vPvB: N/A | | `: `: | | : | 1 | | : | 1 | | : | 1 | |

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances CAS No. / Substance Name: 7440-74-6 Indium

| Identification number(s): | | | ' | | ' | | | | | |
|--|---------------|----------|---------|--------------|--------------|--------------|-----------|------------|-----|--|
| EC number: | | | | | | | | | | |
| 231-180-0 | | · · · | | | | | | · · · . | | |
| | | | | | | | | | | |
| SECTION 4. FIRST | | EAS | URE | S | ¹ | ¹ | | * | | |
| Description of first aid measure General information | es | ··. | | : | · · . | | : | ··. | | |
| No special measures required | | | | | | | | | | |
| Seek medical treatment in cas | e of comp | laints. | | н н Н | ¹ | | н н н | | | |
| In case of skin contact: | | | | | | | | | | |
| Generally the product does no | t irritate th | ne skin. | | | | | | | | |
| In case of eye contact: | | | 1 | , , , | | | | : ** | 1 | |
| Rinse opened eye for several | minutes u | nder ru | nning v | vater. If sy | /mptom | s persi | st, consu | ilt a doct | or. | |
| If swallowed: | | | | | | | | | | |
| If symptoms persist consult do | ctor. | · · . | | | · · . | | | · · · . | | |
| Information for doctor | | | | | | | | | | |
| Most important symptoms and | effects, b | oth acu | ute and | delayed | | | | | | |
| No data available | н н н | | | 1 1 1 | | | | | | |
| Indication of any immediate me | edical atte | ention a | nd spe | cial treatn | nent ne | eded | | | | |
| No data available | | · · · . | | | | | | | | |
| ta standar an ta | | | | | | | | | · . | |
| SECTION 5. FIREFI | GHTIN | | IEAS | URES | | | | | | |
| Extinguishing media Suitable extinguishing agents | : | · · , | | - | ••• | . ' | : | ···, | | |
| Special powder for metal fires. | | | | | | | | | 1 | |
| For safety reasons unsuitable Special hazards arising from th | | | | | ' | ' | | ' | * | |

| | | | | 1 | | | | | |
|------------------------------------|--------------|----------|--------------|--------------|--------------|---------|----------|-------|---|
| If this product is involved in a f | ire, the fol | llowing | can be | e released: | | | | ' | |
| Indium oxide | | | | | | | | | |
| Advice for firefighters | | · · . | | | · · . | | | 11 | |
| Protective equipment: | | | | | | | | | |
| No special measures required. | | | | | | | | 111 | |
| <u> </u> | | 1 | 1 | 1 - 1 1 | | 1 | | | |
| | | | | | | | | | |
| SECTION 6. ACCID | ENIA | | LEA | | ASU | JRE | | | |
| Personal precautions, protectiv | ve equipm | enț and | d emer | gency proc | edure | S | | | |
| Not required. | | | | | | | | | |
| Environmental precautions: | | ' | · · ' | 1 I | ' | | | | |
| Do not allow material to be rele | eased to t | he envi | ironme | nt without o | official | permits | 5. | · · . | |
| Methods and materials for con | tainment | and cle | anup: | | | | | | |
| Pick up mechanically. | | : • • | | | ; • • | | | : • • | |
| Prevention of secondary hazar | ds: | | | | | | | | |
| No special measures required. | • | | | i. | | | | | |
| Reference to other sections | | · · . | | | · · . | | | 11 | |
| See Section 7 for information of | on safe ha | Indling | | | | | | | |
| See Section 8 for information of | on person | al prote | ection e | equipment. | | | | 111 | |
| See Section 13 for disposal inf | ormation. | | | | ¹ | | н н 1 | ' | |
| lation at the second state | | ··. | | ; | | | : | · · , | |
| SECTION 7. HANDI | | | STO | RAGE | | | | | |
| Handling | | 111 | | и 1 — 1 | : · · | 1 | | ; • • | 1 |
| Precautions for safe handling | | ' | ¹ | 1 - 1 1 | | | | | |
| Keep container tightly sealed. | | | | | | | | | |

Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires:

No special measures required.

Conditions for safe storage, including any incompatibilities

| | | 1 | | | 1 | | 1 | 1 | |
|---|--------|------------------|-----------|---------|--------------|----------|---------|-------------------|---|
| Requirements to be met by storerooms a | and re | cepțacl | es: | | | | | | |
| No special requirements. | | | | | | | | | |
| Information about storage in one commo | n stor | age fac | ility: | 11. | , · · · | | · · · · | | |
| Do not store together with acids. | | | | | | | | | |
| Store away from oxidizing agents. | | | | 1 | 1 | | | | |
| Further information about storage condit | ions: | 1.1 | н н н | | ¹ | н н н | | | |
| Keep container tightly sealed. | | | | | . ' | : | | | : |
| Store in cool, dry conditions in well-seale | | | | | , | , | | | |
| Specific end use(s) | ; • • | | | | · . | | | 1 | |
| No data available | | | | | | | | | |
| | | 1.1 ¹ | | | | | | 1. 1 ⁰ | |
| | | | | | | 1 | · · . | | - |
| SECTION 8. EXPOSURE (| JON | IIRC |)L5/P | ER20 | NAL | - | | | |
| PROTECTION | | | | | | | | | |
| Additional information about design of te | chnica | al syste | ms: | | | | | | |
| No further data; see section 7. | | | ı | | | | | | |
| Control parameters | · · . | | | 11. | | | · · . | | |
| Components with limit values that require | | - | | - | | | | | |
| 7440-74-6 Indium (100.0%)REL (USA) L | ong-te | erm valu | ue: 0.1 n | ng/m | | | | 1 | |
| 3 | ' | 1.1 | н н 1 | | ¹ | | | | |
| as In | | | | | | | | | |
| TLV (USA) Long-term value: 0.1 mg/m | · · , | . ' | 1 | · · · . | , ' | | · · · . | .' | : |
| 3 | | | | | | | | | |
| as In | ł | : | | ' | 1 | | ł | 1 | |
| EL (Canada) Long-term value: 0.1 mg/m | · · ' | ¹ | | | ¹ | | | | |
| 3 | | | | | | | | | |
| EV (Canada) Long-term value: 0.1 mg/m | | | | | | | | | |
| 3 | ; • • | | | | | | | | |
| as indium | | | | | | | | | |
| Additional information: | ' | ' | | | ' | | ' | | |

| No data | ¹ | | | ¹ | 1 - 1 1 | ' | | | | |
|---|--------------|-------------|---------|--------------|------------------------|-------|----|------------|-----------|------|
| Exposure controls | | | | | | | | | | |
| Personal protective equ | iipment | | · · · · | | | · · . | | | | |
| Follow typical protective | and hy | ygienic pr | actices | for hai | ndling ch [,] | | | | | |
| Maintain an ergonomica | ally app | ropriate v | vorking | enviro | nment. | | 1 | | 111 | |
| Breathing equipment: | ¹ | н н н | | ¹ | 1 - 1 1 | | | | | |
| Not required. Protection of hands: | | | ·· | | | ·· | | 1 | 94. 19 | |
| | | rial (in mi | | 1 | | ; | 1 | | | |
| Penetration time of glov No data available | | | | ¹ | 1 - 1 1 | ' | | 1 - 1 1 | | |
| Eye protection: | | | ••• | | ; | · · , | | 1 | | |
| Safety glasses | | | | | | | | | | |
| Body protection: | | | | `: : | | ; • • | `: | | | |
| Protective work clothing | | 1 - 1 1 | | | | | | | | |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| In | formation on ba | asic ph | ysical a | and cher | nical pro | perties | | | | | | 1 | |
|----|-------------------|--------------|--------------|-----------|-----------|------------------|----------|-------|--------------|----------|-------|--------------|--|
| Ap | opearance: | | | | | | | ' | | | | | |
| | orm: Solid in va | rious f | orms | | | | | | | | | | |
| С | olor: Silvery-wh | ite | | | 11 | , ' ['] | | | | 1 | · · . | | |
| 0 | dor: Odorless | | | | | | | | | | | | |
| 0 | dor threshold: N | No data | a availa | ıble. | | | | 1.1.1 | | | | | |
| pŀ | 1: N/A | | ¹ | | | | | ' | ¹ | | | ¹ | |
| M | elting point/Mel | - | <u> </u> | | 314 °F) | | | | | | | | |
| Bo | oiling point/Boil | | | | 762 °F) | , ' | i | | | ; | | | |
| Sı | ublimation temp | peratur | e / star | t: No dat | a availa | ble | | | | | | | |
| Fl | ammability (sol | | | 1 I | | | | ı | | | | | |
| No | o data available | e .'' | ' | н н н | 1.1 | ' | н н 1 | | | н н н | | ¹ | |
| | | | | | | | | | | | | | |

| | | | | | | | | | 1 | |
|------------------------------------|------------|--------------|----------|------------|---------|--------------|------------|---------|-----|---|
| Ignition temperature: No data av | ailable | | ' | 1 I | ' | | 1 I | | | |
| Decomposition temperature: No | o data ava | ilable | | | | | | | | |
| Autoignition: No data available. | | | | | · · · . | | | · · · · | | |
| Danger of explosion: No data av | /ailable. | | | | | | | | | |
| Explosion limits: | | | | н 1 - 1 | | | | | | |
| Lower: No data available | | | ' | н н н | ' | ¹ | | | | |
| Upper: No data available | 1 | | . 1 | | | | 1 | | | |
| Vapor pressure at 20 °C (68 °F) | : 0 hPa | | | | · · . | . ' | | · · . | . ' | : |
| Density at 20 °C (68 °F): 7.31 g/ | /cm | ; • • | · . | | | · . | | | | |
| 3 | | | ; | 1 1 | | i | 1 1 | | | |
| (61.002 lbs/gal) | | ¹ | ' | н н н | ' | ' | | | | |
| Relative density | | | | | · · . | | | | | |
| No data available. | | | | | | | | | | |
| Vapor density | | ; • • | | | | · . | | : * * | | |
| N/AEvaporation rate | | | | | | | | | | |
| N/A | | | ' | | ' | ' | | | | |
| Solubility in Water (H | | | | | · · . | | | · · . | | |
| 2 | | | | | | | | | | |
| O): Insoluble | | ; • • | 1 | | : · · · | | | 111 | | |
| Partition coefficient (n-octanol/w | /ater): No | data a | vailable | Ð., , | ' | ' | | | | |
| Viscosity: | | | | , | | | 1 | | | , |
| Dynamic: N/A | | · · . | | | · · . | | | · · . | | |
| Kinematic: N/A | | | | | | | | | | |
| Other information | 1 1 1 | | | н н н | 1.1.1 | | н 1 - 1 | : ' ' | 1 | |
| No data available | 1 - 1 1 | ' | | | | | | | | |
| | | | | | · · · . | | | ··. | | |

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available

| | | 1 1 | | ; | | | | | | | |
|--|-----------|--------------|-----------|--------------------|------------|--------------|---|----------|---------|---|---|
| Chemical stability | ' | | ' | ' | | | ' | | | | |
| Stable under recomme | | | | | | | | | | | |
| Thermal decomposition | n / conc | ditions to b | be avoid | ded: | 1 | | | | · · · . | | |
| Decomposition will not | occuri | if used and | d stored | | | • | | | | | |
| Possibility of hazardou | s react | ions | | | | 111 | | | 111 | 1 | |
| Reacts with strong oxid | dizing a | agents | ' | ' | н н н | | | | | | |
| Conditions to avoid | . • | : | | . ' | | | | | | | |
| No data available | 1 | i | | | | | | | | | |
| Incompatible materials Acids | 1 | | | | 1 1 - 1 | 1 1 1 1 | | 1 1 1 | | | |
| Oxidizing agents | | 1 - 1 1 | ' | · · · [*] | н н н | ¹ | | | | | |
| Hazardous decomposi | tion pro | oducts: | · · . | | | · · . | | | · · . | | |
| Metal oxide fume | | | | | | | | | | | |
| Indium oxide | | . : | :** | 1 | | 111 | 1 | | 111 | 1 | |
| | | | | ' | 1 1 | | | | | | |
| SECTION 11. | ogical et | ffects | | | | | | | ··. | | |
| Acute toxicity: | | | | | | | | | | | |
| No effects known. | ' | | ' | ¹ | | | ' | | | | |
| LD/LC50 values that a | re relev | ant for cla | assificat | tion: | | | | | | | |
| No data | | | · · . | | 1 | | | | · · . | | |
| Skin irritation or corros | | | | | | | | | | | |
| May cause irritation | | | | | н н н | | | | | | , |
| Eye irritation or corrosi | on: | | ' | ' | н н н | | | | | | |
| May cause irritation Sensitization: | | : | ··. | | : | ••• | | 1 | ۰۰, | | |
| | | | | | | | | | | | : |
| No sensitizing effects k Germ cell mutagenicity | 1 | | | 1 | 1 1 - 1 | | | | | | |

| Carcinogenicity: | | | | | | | | | | |
|---|-----------|--------------|----------|-----------|--------------|-----------|---------|-------------|-------|---------------------|
| Carcinogenicity: | | | | | | | | | | |
| No classification data or NTP, OSHA or ACGIH. | i carcin | | operties | s or uns | material | is availa | | | | ' י |
| | | | | | | | | | | |
| Reproductive toxicity: | | | | | | | | | : • • | |
| No effects known. | | | | | | | | | | |
| Specific target organ sys | stem to | xicity - rep | peated e | exposu | re: | | | 1 I | | ' |
| No effects known.Specif | fic targe | et organ s | ystem to | oxicity - | - single ex | (posure | : | | · · . | |
| No effects known. | | | | | | | | | | |
| Aspiration hazard: | | | : * * | · . | | : * * | | | : • • | |
| No effects known. | | | | | | | | | | |
| Subacute to chronic toxi | city: | 1 I | · · ' | | 1 I | · · · ' | | | | |
| No effects known. | | | · · . | | | ••• | | 1 | · · . | |
| Additional toxicological i | | | | | | | | | | |
| To the best of our knowl | edge th | ne acute a | nd chro | onic tox | icity of thi | s substa | ance is | not fully k | nown. | |
| Carcinogenic categories | 5 | | | | | | | | | |
| OSHA-Ca (Occupationa | | | | | | | | н н н | | · · · [*] |
| Substance is not listed | | | · · . | | | · · . | 11 | 1 | · · . | $\mathcal{A}^{(1)}$ |
| | | | | | | | | | | |
| an an an | · . | | ; • • | · | | ; · · · | | | | |
| SECTION 12. E | | | | | | | | | | |
| Toxicity | | | | | , | | | , | | |
| Aquatic toxicity: | | | · · · . | | | · · . | | 1 | · · . | |
| No data available | | | | | | | | | | |
| Persistence and degrad | ability | н н н | ; • • | | 1 1 1 | | | | | |
| No data available | | | | ' | н н н | ' | | | | |
| Bioaccumulative potenti | al | | | | | | | | | |
| No data available | | 1 | · · . | . ' | | · · · | .' | 1 | · · . | |
| Mobility in soil | | | | | | | | | | |
| No data available | | 1 1 | | 1 | | | : | | | 1 |
| | | | | | | | | | | |

Do not allow material to be released to the environment without official permits.

Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.

SECTION 13. DISPOSAL CONSIDERATIONS

| Waste treatment methods | | | | | | |
|---|------|----------|---|-----|-------|--|
| Recommendation | | ' | ' | | ' | |
| Consult official regulations to ensure proper disposal. | | 11. 1 | | | · · . | |
| Uncleaned packagings: | | | | | | |
| Recommendation: | | 111 | | | ; • • | |
| Disposal must be made according to official regulations | j.,, | | | 1 1 | | |

SECTION 14. EXPOSURE CONTROLS/PERSONAL

| PROTECTION | | | | | н 1 — 1 | | `: | : ' ' | | , |
|---------------------------|-----|----------|--------------|-----|------------|--------------|----------|-------|-----|---|
| UN-Number | ' | н н н | ¹ | | 1 - 1 1 | ¹ | | | | |
| DOT, ADN, IMDG, IATA | | | · · . | | | · · . | | · · . | | |
| N/AUN proper shipping na | ame | | | | | | | | | |
| DOT, ADN, IMDG, IATA | : | | 1 1 1 1 | · . | | | `: `: | ; · · | · . | |
| N/A | | | | | | | | | | |
| Transport hazard class(es | | | | | | | ' | ' | ' | |

| | | | | | | 1 | | | | | | |
|------------------------|--------------|----------|----------|---------|--------------|----------|-----------|------|----------|-----------------|--------------|---|
| DOT, ADR, ADN | I, IMDO | G, IATA | | | | | | | | | | |
| Class N/A | ··. | | : | ··., | | | · · · · | | | · · · · | | |
| Packing group | | | | | | | | | | | | |
| DOT, IMDG, IAT | A | | | | | | | | | 111 | | |
| N/A | ¹ | ' | | | | | | | | | | |
| Environmental h | azards | : ,.' | : | · · · , | , , , | | · · , | | : | ۰. | | 1 |
| Special precaution | | | | | 1 | | | | | | | |
| Transport in bulk | accore | ding to | Annex II | of MAR | POL73 | 6/78 and | the IBC (| Code | н н н | 1. ¹ | ¹ | |
| N/A | · · · | | | | | | · · . | | | | | : |
| Transport/Addition | onal inf | ormatio | n: | | | | | | | | | |
| DOT | | 1 | | : * * | | | 111 | | | 111 | 1 | |
| Marine Pollutant No | | | | ' | ¹ | | | ' | | * | ' | |
| | | 1 | | 7 7 | 1 | | 1 - 1 | 1 | | | | : |

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture National regulations All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Domestic Substances List (DSL). SARA Section 313 (specific toxic chemical listings) Substance is not listed. California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity

| Substance is not listed. | | | | 1 - 1 1 | | ' | | | | |
|--------------------------------|-----------------|--------------|--------------|-------------|--------------|---------|-------------|-----------|-------|--|
| Prop 65 - Developmental to: | xicity, female | e | | | | | | | | |
| Substance is not listed. | | | | | | | | | | |
| Prop 65 - Developmental to: | xicity, male | | | | | | | | | |
| Substance is not listed. | | | 1 | | | | | | 1 | |
| Information about limitation | of use: | ¹ | ¹ | н н Н | ¹ | ' | | | | |
| For use only by technically of | qualified indiv | viduals. | | : | | | | | | |
| Other regulations, limitations | s and prohib | itive reg | gulation | าร | 1 | 1 | | 1 | | |
| Substance of Very High Cor | ncern (SVHC | c) accor | ding to | the REA | CH Reg | ulation | s (EC) No | b. 1907/2 | 2006. | |
| Substance is not listed. | | | ı | | | , | | | · | |
| The conditions of restriction | s according t | to Articl | e 67 a | nd Annex | XVII of | the Re | gulation (I | EC) No | 1.1 | |
| 1907/2006 (REACH) for the | manufacturi | ing, plac | cing or | n the mark | tet and ι | ise mu | st be obse | erved. | | |
| Substance is not listed. | | | | | | | | | | |
| Annex XIV of the REACH R | egulations (r | equirin | g Auth | orisation f | or use) | · . | | 111 | | |
| Substance is not listed. | | | | | | | | | | |
| Chemical safety assessmen | it: | ' | ¹ | | ' | | | ' | | |
| and the provide states and | nt: | | | | | | | | | |

SECTION 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.