



SAFETY DATA SHEET

MATERION

1. Product and company identification

Product name Molybdenum Backing Plate Assembly
Manufacturer/Supplier Materion Advanced Materials Group
Address 42 Mt. Ebo Road South
Brewster, NY 10509
United States
Telephone Supplier Phone 1+845.279.0900
e-mail Not available.
Contact person
Emergency telephone number Chemtrec 1+703.527.3887
Recommended use and Limitations on use
Recommended use Not available.
SDS number 224

2. Hazards identification

GHS classification
Physical hazards Not classified.
Health hazards Specific target organ toxicity following single exposure Category 3 respiratory tract irritation
Environmental hazards Not classified.
Label elements
Symbols None.
Signal word None.
Hazard statement None.

3. Composition/information on ingredients

Substance or mixture	Substance	CAS Number	Concentration (%)
Chemical property			
Indium		7440-74-6	100 - < 100
Molybdenum		7439-98-7	100 - < 100

4. First aid measures

Inhalation Not available.
Skin contact Not available.
Eye contact Not available.
Ingestion Not available.
Potential delayed effects Not available.
Personal protection for first-aid responders Not available.
Notes to physician Not available.

5. Fire-fighting measures

Extinguishing media Not available.
Extinguishing media to avoid None.
HAZCHEM Code Number None.
Specific hazards during fire fighting None.
Special fire fighting procedures Not available.
Protection of fire-fighters Not available.

Hazards from combustion products None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Not available.

Environmental precautions Not available.

Spill cleanup methods Not available.

7. Handling and storage

Handling

Precautions Not available.

Safe handling advice Not available.

Prevention of fire and explosion Not available.

Storage

Suitable storage conditions Not available.

Incompatible materials Not available.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Material	Type	Value
Molybdenum Backing Plate Assembly	TWA	10 mg/m3

Components	Type	Value
Indium (CAS 7440-74-6)	TWA	0.1 mg/m3
Molybdenum (CAS 7439-98-7)	TWA	10 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Indium (CAS 7440-74-6)	TWA	0.1 mg/m3

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Molybdenum Backing Plate Assembly	STEL	20 mg/m3

Components	Type	Value
Indium (CAS 7440-74-6)	TWA	10 mg/m3

Indium (CAS 7440-74-6)	STEL	0.3 mg/m3
		0 ppm
	TWA	0.1 mg/m3
Molybdenum (CAS 7439-98-7)	STEL	20 mg/m3
	TWA	10 mg/m3

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Material	Type	Value
Molybdenum Backing Plate Assembly	TWA	10 mg/m3

Components	Type	Value
Indium (CAS 7440-74-6)	TWA	0.1 mg/m3
Molybdenum (CAS 7439-98-7)	TWA	10 mg/m3

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Material	Type	Value
Molybdenum Backing Plate Assembly	TWA	10 mg/m3

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
Indium (CAS 7440-74-6)	TWA	0.1 mg/m ³
Molybdenum (CAS 7439-98-7)	TWA	10 mg/m ³

Biological limit values No biological exposure limits noted for the ingredient(s).

Engineering controls**Personal protective equipment**

Respiratory protection Not available.

Skin protection Not available.

Eye/face protection Not available.

Radioactive or thermal hazards Not available.

Hygiene measures Not available.

9. Physical and chemical properties**Appearance**

Physical state Solid.

Form Not available.

Colour Not available.

Odour Not applicable.

Odour threshold Not available.

pH Not available.

Melting point/freezing point 2622 °C (4751.6 °F)

Boiling point, initial boiling point, and boiling range 4639 °C (8382.2 °F)

Flash point Not available.

Auto-ignition temperature Not applicable.

Flammability (solid, gas) Not applicable.

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit – upper (%) Not available.

Vapour pressure < 0.0000001 kPa at 25 °C

Vapour density Not available.

Evaporation rate Not available.

Relative density Not available.

Density 10.28 g/cm³ estimated

Solubility(ies)

Solubility (water) Insoluble

Partition coefficient (n-octanol/water) Not available.

Decomposition temperature Not available.

Molecular weight 95.94 g/mol

Other data

Molecular formula Mo

Specific gravity 10.28

10. Stability and reactivity

Stability None.

Conditions to avoid None.

Incompatible materials None.

Hazardous decomposition products None.

Possibility of hazardous reactions None.

11. Toxicological information

Acute toxicity Not available.

Information on likely routes of exposure

Ingestion Not available.

Inhalation Not available.

Skin contact Not available.

Eye contact Not available.

Routes of exposure Not available.

Symptoms Not available.

Skin corrosion/irritation Not available.

Serious eye damage/eye irritation Not available.

Skin sensitiser Not available.

Chronic effects Not available.

Relevant negative data Not available.

12. Ecological information

Ecotoxicological data

Product		Species	Test results
Molybdenum Backing Plate Assembly			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	800 mg/l, 96 hours
Components		Species	Test results
Molybdenum (CAS 7439-98-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	800 mg/l, 96 hours

Ecotoxicity Not available.

Persistence and degradability Not available.

Bioaccumulation Not available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

Mobility Not available.

Other hazardous effects Not available.

13. Disposal considerations

Disposal methods/information Not available.

Special precautions Not available.

14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

Indium (CAS 7440-74-6)

HSNO Approved

Molybdenum (CAS 7439-98-7)

HSNO Approved

16. Other information

References Not available.

Issued by
Not available.

Prepared by
Not available.

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