



SAFETY DATA SHEET

MATERION

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| | | | |
|--|--|----------------|--|
| Identification of the substance/preparation | Aluminum Scandium Products | | |
| Version No. | 02 | | |
| Issue date | 01-June-2015 | | |
| Revision date | 02-June-2015 | | |
| CAS # | Alloy | | |
| SDS Number | 340 | | |
| Manufacturer information | Materion Advanced Materials Group 42 Mt. Ebo Road South Brewster, NY 10509 | | |
| | United States | | |
| | Supplier Phone | 1+845.279.0900 | |
| | Chemtrec | 1+703.527.3887 | |

2. HAZARDS IDENTIFICATION

| | |
|------------------------------|--|
| Classification | N;R50/53 |
| Physical hazards | Not classified as a physical hazard. |
| Health hazards | Not classified as a health hazard. |
| Environmental hazards | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS # | Percent | EC-No. | Classification |
|------------|-----------|-----------|-----------|----------------|
| Aluminium | 7429-90-5 | 75 - 99,9 | 231-072-3 | N;R50/53 |
| Scandium | 7440-20-2 | 0,1 - 25 | 231-129-2 | |

4. FIRST-AID MEASURES

5. FIRE-FIGHTING MEASURES

6. ACCIDENTAL RELEASE MEASURES

7. HANDLING AND STORAGE

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. ACGIH Threshold Limit Values

| Components | Type | Value | Form |
|---------------------------|------|---------------------|----------------------|
| Aluminium (CAS 7429-90-5) | TWA | 1 mg/m ³ | Respirable fraction. |

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

Recommended monitoring procedures

Additional exposure data Not available.

Personal protective equipment

Skin and body protection 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. |
| Boiling point | 2327 °C (4220,6 °F) estimated |
| Flash point | Not available. |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Vapour pressure | 0,00001 hPa estimated |
| Relative density | Not available. |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Viscosity | Not available. |
| Vapour density | Not available. |
| Evaporation rate | Not available. |
| Melting point/freezing point | 660 °C (1220 °F) estimated |
| Auto-ignition temperature | Not applicable. |
| VOC | Not available. |
| Other data | |
| Density | 2,70 g/cm3 estimated |
| Specific gravity | 2,7 estimated |

10. STABILITY AND REACTIVITY

| | |
|---|----------------|
| Conditions to avoid | Not available. |
| Hazardous decomposition products | Not available. |

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

Ecotoxicological data

| Product | | Species | Test results |
|----------------------------|------|---|---------------------------------|
| Aluminum Scandium Products | | | |
| Aquatic | | | |
| Fish | LC50 | Fish | 2,6136 mg/l, 96 hours estimated |
| Components | | Species | Test results |
| Aluminium (CAS 7429-90-5) | | | |
| Aquatic | | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 0,16 mg/l, 96 hours |

13. DISPOSAL CONSIDERATIONS

14. TRANSPORT INFORMATION

ADR

| | |
|-------------------------------------|--|
| UN number | 3077 |
| UN proper shipping name | Environmentally hazardous substance, solid, n.o.s. |
| Transport hazard class(es) | |
| Class | 9 |
| Subsidiary risk | - |
| Label(s) | 9 |
| Hazard No.(ADR) | 90 |
| Tunnel restriction code | E |
| Packing group | III |
| Environmental hazards | No. |
| Special precautions for user | Not available. |

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.

ADR



15. REGULATORY INFORMATION

Labeling

Contains Aluminium, Scandium

Symbol(s)



Dangerous for the environment

R-phrases(s) R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s) S57 Use appropriate container to avoid environmental contamination.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

16. OTHER INFORMATION

Wording of the R-phrases in sections 2 and 3 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Revision Information Transport Information: Material Transportation Information