



SAFETY DATA SHEET

MATERION

1. Product and company identification

Name of the chemical Iron Boron Products

Other means of identification
SDS number 323

Recommended use of the chemical and restrictions on use
Recommended use Not available.
Recommended restrictions None known.

Manufacturer/Importer/Supplier/
Distributor information 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 Not available.

Emergency telephone
number Chemtrec 1+703.527.3887

2. Hazards identification

Hazard classification
Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

Label elements
Symbols None.
Signal word None.

Hazard statement The Material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

Precautionary statement None.

Other hazards None known.

Supplemental information None.

3. Composition/information on ingredients

Mixture

Chemical properties	CAS Number	Concentration (%)
Iron	7439-89-6	50 - 99
Boron	7440-42-8	1 - 50

4. First aid measures

First aid measures for different exposure routes
Inhalation Not available.
Skin contact Not available.
Eye contact Not available.
Ingestion Not available.

Most important symptoms and 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.

Specific hazards during fire fighting None.

Special fire fighting procedures Use water spray to cool unopened containers.

Protection of fire-fighters None.

6. Accidental release measures

Personal precautions Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Environmental precautions Not available.

Spill cleanup methods Dike far ahead of spill for later disposal. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Handling Not available.

Storage Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Exposure limits

No exposure limits noted for ingredient(s).

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

Appropriate engineering controls Not available.

Individual protection measures, such as personal protective equipment

Eye/face protection Not available.

Skin protection

Hand protection Not available.

Other Not available.

Respiratory protection Not available.

Thermal hazards Not available.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Solid.

Color Not available.

Odor Not available.

Odor threshold Not available.

Melting point/freezing point 2800.4 °F (1538 °C) estimated

pH Not available.

Boiling point, initial boiling point, and boiling range 5181.8 °F (2861 °C) estimated

Flammability (solid, gas) Not available.

Flash point Not available.

Decomposition temperature Not available.

Auto-ignition temperature 1076 °F (580 °C) estimated

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.00001 hPa estimated
Vapor density	Not available.
Density	2.36 g/cm3 estimated
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Evaporation rate	Not available.
Other data	
Specific gravity	2.36 estimated

10. Stability and reactivity

Stability	Not available.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	None.
Hazardous decomposition products	None.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.

Symptoms Not available.

Information on toxicological effects

Acute toxicity	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Chronic effects	Not available.

12. Ecological information

Ecotoxicity	No ecotoxicity data noted for the ingredient(s).
Persistence and degradability	Not available.
Bioaccumulation	Not available.
Mobility in soil	Not available.
Other hazardous effects	Not available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Residual waste	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.
Local disposal regulations	Dispose in accordance with all applicable regulations.

14. Transport information

IATA

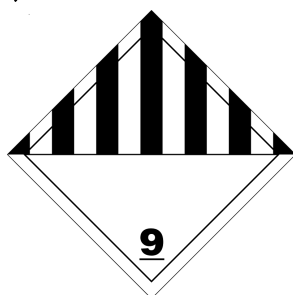
UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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

IATA; IMDG



15. Regulatory information

Applicable regulations

Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste

Not listed.

Hazardous Substances and Flammable Pressurized Gases Establishment Standards and Safety Control Regulations

Iron (CAS 7439-89-6)

Class 2: Flammable Solids

Rules on Road Transportation Safety

Regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

16. Other information

References

Not available.

Issued by

Not available.

Prepared by

Not available.

Disclaimer

Materion Advanced Materials Group cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

02-12-2018

Revision information

Product and Company Identification: Product Review
Composition / Information on Ingredients: Ingredients
Transport Information: Material Transportation Information