

SAFETY DATA SHEET

1. Identification

Product identifier	Bismuth Sulfide Powder	
Other means of identification		
SDS number	1DU	
Materion Code	1DU	
CAS number	1345-07-9	
Manufacturer/Importer/Supplier/Dis	tributor information	
Manufacturer		
Company name	Materion Advanced Chemicals Inc.	
Address	407 N 13th Street	
	1316 W. St. Paul Avenue	
	Milwaukee, WI 53233 United States	
Telephone	414.212.0257	
E-mail	advancedmaterials@materion.com	
Contact person	Laura Hamilton	
Emergency phone number	Chemtrec 800.424.9300	
2. Hazard(s) identification		
Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Classification not possible
	Serious eye damage/eye irritation	Classification not possible
	Specific target organ toxicity, single exposure	Classification not possible
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Warning	
Hazard statement	Causes skin and eye irritation. Causes skin irritation. May cause respiratory irritation.	
Precautionary statement		
Prevention	Do not breathe dust/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection.	
Response	If on skin: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Remove and wash contaminated clothing before re-use. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned: Call a poison center/doctor. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.	
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.	
Disposal	Dispose of waste and residues in accordance with local authority requirements.	

Hazard(s) not otherwise classified (HNOC)

None known.

100% of the mixture consists of component(s) of unknown acute oral toxicity. 100% of the mixture consists of component(s) of unknown acute dermal toxicity. 100% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 100% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. For further information, please contact the Product Stewardship Department at +1.800.862.4118.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Bismuth Sulfide		1345-07-9	100
4. First-aid measures			
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Call a physician if symptoms develop or persist.		
Skin contact	Wash off with soap and water. Get medical a	ttention if irritation develops and	persists.
Eye contact	Flush thoroughly with water for at least 15 mi	nutes. Get medical assistance.	
Ingestion	Rinse mouth. Get medical attention if sympto	ms occur.	
Most important symptoms/effects, acute and delayed	Causes eye irritation. Skin irritation. May cause	se respiratory irritation.	
Indication of immediate medical attention and special treatment needed	Treat symptomatically.		
General information	If you feel unwell, seek medical advice (show personnel are aware of the material(s) involve		
5. Fire-fighting measures			
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carb	oon dioxide (CO2).	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as th	is will spread the fire.	
Specific hazards arising from the chemical	During fire, gases hazardous to health may b	e formed.	
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full p	rotective clothing must be worn	in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do	so without risk.	
Specific methods	Use standard firefighting procedures and con	sider the hazards of other involv	ved materials.
General fire hazards	No unusual fire or explosion hazards noted.	Decomposition in a fire produces	s toxic fumes.
6. Accidental release measu	ures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Ventilate Avoid generation and spreading of dust. Avoi protective clothing, gloves and eye/face prote	d inhalation of dust and vapors.	-
Methods and materials for containment and cleaning up	Avoid dust formation. Stop the flow of materia flush area with water.	al, if this is without risk. Followin	g product recovery,
Environmental precautions	Avoid discharge into drains, water courses or	onto the ground.	
7. Handling and storage			
Precautions for safe handling	Avoid contact with eyes and prolonged or rep aerosols. Ventilate well, avoid breathing vapo above accepted level.		
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container.		

8. Exposure controls/personal protection

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Occupational exposure limits	This substance has no PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	This material does not have established exposure limits.
Appropriate engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

9. Physical and chemical properties

Appearance	
Physical state	Solid.
Form	Solid. Powder
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explos	ive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

Other informationVot explosive.Explosive propertiesNot explosive.Molecular formulaB2S3Oxidizing propertiesNot oxidizing.10. Stability and reactivityMaterial is stable and non-reactive under normal conditions of use, storage and transport.Chemical stabilityMaterial is stable under normal conditions of normal use.Possibility of hazardousNo dangerous reaction known under conditions of normal use.Possibility of hazardousContact with incompatible materials.Incompatible materialsStorago oxidizing agents. Strong acids.Hazardous decomposition products are known.productsproductsInitiating to respiratory system. Prolonged inhalation may be harmful.11. Toxicological Informatio-Irritating to respiratory system. Prolonged inhalation may be harmful.Skin cortactIrritating to eyes.Indexide chemical andUrritating to eyes.Information on toxicological affectsCauses discomfort if swallowed.Symptoms related to theIrritating to eyes.privated. chemical andIrritating to eyes.Information on toxicological affectsCauses eye irritation. Causes skin irritation. Respiratory tract irritation.Skin corrosoln/InflationIrritating to eyes.Inframetion on toxicological affectsIrritating to eyes.Respiratory sensitizationNot catespiratory sensitizar.Skin corrosoln/InflationIrritating to eyes.Inframetion on toxicological affectsIrritating to eyes.Respiratory sensitizationNot data available to indicate product or any c		
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Specific target organ toxicity - single exposureRespiratory system.Specific target organ toxicity - repeated exposureNot classified.Aspiration hazardNot an aspiration hazard.Chronic effectsCan cause lung damage.		
single exposureNot classified.Specific target organ toxicity - repeated exposureNot classified.Aspiration hazardNot an aspiration hazard.Chronic effectsCan cause lung damage.		
repeated exposureAspiration hazardNot an aspiration hazard.Chronic effectsCan cause lung damage.		Respiratory system.
Chronic effects Can cause lung damage.		Not classified.
	Aspiration hazard	Not an aspiration hazard.
Further informationOccupational exposure to the substance or mixture may cause adverse effects.	Chronic effects	Can cause lung damage.
	Further information	Occupational exposure to the substance or mixture may cause adverse effects.

Material name: Bismuth Sulfide Powder1DUVersion #: 02Revision date: 05-02-2018Issue date: 01-10-2018

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	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.

14. Transport information

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Yes

chemical

SARA 313 (TRI reporting) Not regulated.

Other federal regulations

Clean Air Act (CAA) Sectior	n 112 Hazardous Air Pollutants (HAPs) List
Not regulated.	
Clean Air Act (CAA) Sectior	n 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.	
Safe Drinking Water Act (SDWA)	Not regulated.
US state regulations	California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
16. Other information, incl	uding date of preparation or last revision
laava data	01 10 2018

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Issue date	01-10-2018
Revision date	05-02-2018
Version #	02
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