



SAFETY DATA SHEET

MATERION

1. Identification

Product identifier Barium strontium titanate

Other means of identification

SDS number 2NK

Materion Code 2NK

CAS number 12430-73-8

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Materion Advanced Chemicals Inc.

Address 407 N 13th Street
1316 W. St. Paul Avenue
Milwaukee, WI 53233
United States

Telephone 414.212.0290

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 Acute toxicity, oral Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Harmful if swallowed or if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary statement

Prevention Avoid breathing dust/fume/gas/mist/vapors. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling.

Response IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Gently wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. Call a poison center/doctor if you feel unwell.

Storage Store in a well-ventilated place. Keep container tightly closed.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Barium strontium titanate		12430-73-8	100

4. First-aid measures

Inhalation	Move into fresh air and keep at rest.
Skin contact	Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth thoroughly.
Most important symptoms/effects, acute and delayed	Not available.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	The product itself does not burn.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Not available.
Methods and materials for containment and cleaning up	Avoid dust formation. Sweep or scoop up and remove. Transfer to a container for disposal.
Environmental precautions	Not available.

7. Handling and storage

Precautions for safe handling	Not available.
Conditions for safe storage, including any incompatibilities	Not available.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
Barium strontium titanate (CAS 12430-73-8)	PEL	0.5 mg/m3

US. ACGIH Threshold Limit Values

Material	Type	Value
Barium strontium titanate (CAS 12430-73-8)	TWA	0.5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Barium strontium titanate (CAS 12430-73-8)	TWA	0.5 mg/m3

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

Material	Type	Value
Barium strontium titanate (CAS 12430-73-8)	PEL	0.5 mg/m3

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 Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Use protective gloves.

Other Not available.

Respiratory protection In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2).

Thermal hazards Not available.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance Powder.

Physical state Solid.

Form Powder.

Color White.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -361.12 °F (-218.4 °C) estimated

Initial boiling point and boiling range -297.33 °F (-182.96 °C) estimated

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

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 18311524.58 hPa estimated

Vapor density Not available.

Relative density Not available.

Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	482 °F (250 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	3.00 g/cm ³ estimated
Molecular formula	Ba ₂ O ₃ Ti.Sr
Molecular weight	336.81 g/mol
Specific gravity	3 estimated

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Not available.
Incompatible materials	Strong oxidizing substances. Strong acids.
Hazardous decomposition products	Not available.

11. Toxicological information

Information on likely routes of exposure

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

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Not available.
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Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

12. Ecological information

Ecotoxicity No ecotoxicity data noted for the ingredient(s).

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Mobility in soil Not available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

Waste from residues / unused products Not available.

Contaminated packaging Not available.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

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)

Barium strontium titanate (CAS 12430-73-8) 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 chemical Yes

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Barium strontium titanate	12430-73-8	100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

16. Other information, including date of preparation or last revision

Issue date	05-28-2020
Version #	01
Disclaimer	Not available.