



# SAFETY DATA SHEET

**MATERION**

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

<b>Identification of the substance/preparation</b>	Barium Oxide Product		
<b>Version No.</b>	01		
<b>Issue date</b>	02-June-2015		
<b>CAS #</b>	Alloy		
<b>SDS Number</b>	54		
<b>Manufacturer information</b>	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

<b>Classification</b>	Xn;R20/22
<b>Physical hazards</b>	Not classified as a physical hazard.
<b>Health hazards</b>	Harmful by inhalation and if swallowed.
<b>Environmental hazards</b>	Not classified as an environmental hazard.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
Barium Oxide	1304-28-5	99,9 - 100	215-127-9	Xn;R20/22

## 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
Barium Oxide (CAS 1304-28-5)	TWA	0,5 mg/m <sup>3</sup>

#### Turkey. MAK (Ordinance No. 1475 on Precautions Required in Workplaces Working with Flammable, Explosive, Dangerous and Harmful Substances, Annexes 1-3 (1973))

Components	Type	Value
Barium Oxide (CAS 1304-28-5)	MAK	0,5 mg/m <sup>3</sup>

#### Turkey. OELs. Regulation on Protection of Health & Safety Measures from Risks related to Chemical Agents at Work, Annex I, Indicative Occupational Exposure Limit Values

Components	Type	Value
Barium Oxide (CAS 1304-28-5)	TWA	0,5 mg/m <sup>3</sup>

**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

<b>Physical state</b>	Solid.
<b>Form</b>	Not available.
<b>Colour</b>	Not available.
<b>Odour</b>	Not applicable.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapour pressure</b>	0,00001 hPa estimated
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Auto-ignition temperature</b>	Not applicable.
<b>VOC</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Not available.
<b>Hazardous decomposition products</b>	Not available.

## 11. TOXICOLOGICAL INFORMATION

## 12. ECOLOGICAL INFORMATION

## 13. DISPOSAL CONSIDERATIONS

## 14. TRANSPORT INFORMATION

### ADR

<b>UN number</b>	1884
<b>UN proper shipping name</b>	BARIUM OXIDE
<b>Transport hazard class(es)</b>	
<b>Class</b>	6.1(PGIII)
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	6.1
<b>Hazard No.(ADR)</b>	60
<b>Tunnel restriction code</b>	E
<b>Packing group</b>	III
<b>Environmental hazards</b>	No.
<b>Special precautions for user</b>	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** Barium Oxide

**Symbol(s)**



Harmful

**R-phrases** R20/22 Harmful by inhalation and if swallowed.

**S-phrases** S13 Keep away from food, drink and animal feeding stuffs.  
S20 When using do not eat or drink.  
S60 This material and its container must be disposed of as hazardous waste.

**16. OTHER INFORMATION**

**Wording of the R-phrases in sections 2 and 3** R20/22 Harmful by inhalation and if swallowed.