

Revision: 1.1

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## Section 1. Identification

### 1.1 Product Identifier 0866

Product Name	BARIUM METAL (in paraffin liquid)
CAS Number	7440-39-3
REACH Registration No	A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.
Molecular Formula	Ba =137.33

### 1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material	Chemical for industrial and laboratory use. Not suitable for domestic use.
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### 1.3 Supplier Vickers Laboratories Ltd



Grangefield Industrial Estate  
Richardshaw Road  
Pudsey  
West Yorkshire  
LS28 6QW  
UNITED KINGDOM

Phone	44 0113 2362811
Fax	+44(0)113 2362703
Email	safety@viclabs.co.uk
Website	www.viclabs.co.uk

### 1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

## Section 2. Hazards Identification

### 2.1 Classification of the substance or mixture

#### Classification according to regulation 1272/2008/EC

Flammable solid, category 2	H228: Flammable solid.
Contact with water > flam gas, category 2	H261: In contact with water releases flammable gas.
Skin corrosion/irritation, category 2	H315: Causes skin irritation.
Serious eye damage/irritation, category 2	H319: Causes serious eye irritation.
Spec target organ tox - single, category 3	H335: May cause respiratory irritation.

### 2.2 Label elements

#### Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements	Flammable solid. In contact with water releases flammable gas. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Precautionary Statements	Keep away from heat / sparks/open flames/hot surfaces - No smoking. Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inert gas. Protect from moisture. Wear protective gloves / protective clothing / eye protection / face protection. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. In case of fire: Evacuate area.
Supplemental Hazard Information (EU)	Reacts violently with water.

## Section 3. Composition

### 3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Barium	7440-39-3	231-149-1		<100%	Flam. Sol. 2, Water-react. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I)

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. If discomfort persists OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation.
Ingestion	Wash out the patient's mouth thoroughly with water. If conscious give plenty of water to drink. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

### 4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media	Dry chemical powder.
Unsuitable Media	Water spray. Do not use carbon dioxide.

### 5.2 Special hazards arising from the substance or mixture

Hazards	Water spray. A flammable solid. Reacts with water to produce explosive hydrogen gas.
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### 5.3 Advice for firefighters

Advice for firefighters	Consider all other materials in the vicinity.
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## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection Evacuate area immediately. Wear goggles, respirator, rubber boots and heavy rubber gloves. Ensure no sources of ignition.

### 6.2 Environmental precautions

Environmental Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

### 6.3 Methods and material for containment and cleaning up

Major Spillage Cover area of spill with lime. Allow time for the hydrolysis to take place. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Minor Spillage Shovel/sweep up into container for removal Wash area down with copious amounts of water.

### 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.  
Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits		
			Long Term (8hr TWA)	Short Term 15min period)	
Barium	7440-39-3	<100%	-	0.5 ppm	-

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

### 8.2 Exposure controls

Respiratory Protection Wear NIOSH/MSHA-approved respirator.

Hand Protection Wear gloves.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

Special Hazards No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance Yellowish-white or grey chunks.

Odour No specific odour.

pH Not applicable

Boiling Point 1640°C

Melting Point 725°C

Flash Point Not applicable

Upper Flammable Limit Not applicable

Lower Flammable Limit Not applicable

Auto Ignition Not applicable

Explosive Properties	Reacts with water to produce explosive hydrogen gas.
Oxidising Properties	No.
Vapour Pressure	10mmHg@1094°C
Relative Density	3.8560
Water Solubility	Not specified.

## 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

10.1 Reactivity	No data available.
10.2 Chemical Stability	Stable under normal conditions
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to Avoid	No specific conditions.
10.5 Incompatible Materials	Strong oxidising agents. Acids. Water. oxygen. chlorinated solvents.
10.6 Hazardous Decomposition Products	In combustion emits toxic fumes.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	Contact with the solid or dust will be irritating to the eyes.
Skin	Contact with the solid or dust will be irritating to the skin.
LD50 Skin	Not available
Ingestion	Toxic if swallowed. May cause damage to central nervous system and kidneys.
LD50 Oral	Not available
Inhalation	Inhalation of dust will produce irritation of the eyes, nose, throat and respiratory tract. Inhalation of the dust can result in symptoms similar to those due to ingestion.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

## Section 12. Ecological

12.1 Toxicity	Marine and/or freshwater pollutant. Do not allow to enter drinking water supplies. The following applies to Barium Compounds: biological effects; Fish, lethal from 158mg/l. Salmon lethal from 158mg/l: L.Idus LC50: 870mg/l [both as BaCl2]. Barium ions are toxic for aquatic organisms: algae: Sc. quadricauda toxic from 34mg/l: Crustaceans toxic from 29mg/l.
LC50 Algal	Not available
LC50 Crustacea	Not available
LC50 Fish	Not available
12.2 Persistence and degradability	No data available.
12.3 Bioaccumulative potential	No data available.
12.4 Mobility in soil	No data available.
12.5 Results of PBT & vPvB assessment	Assessment not required.
12.6 Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Dispose of via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.
Contaminated Packaging	Dispose of via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

## Section 14. Transport Information

14.1 UN Number	1400
14.2 Proper Shipping Name	Barium
14.3 Transport classes	
UN classification	4.3
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	423
Tunnel Restriction Code	D/E
14.4 Packing Group	II
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Flammable solid, category 2; Contact with water & > flam gas, category 2; Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 2; Spec target organ tox - single, category 3

Signal word Danger

Hazard Pictograms



Hazard Statements H228, H261, H315, H319, H335

Flammable solid. In contact with water releases flammable gas. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary Statements P210, P223, P231+P232, P280, P335+P334, P370+P380

Keep away from heat / sparks/open flames/hot surfaces - No smoking. Keep away from any possible contact with water, because of violent reaction and possible flash fire. Handle under inert gas. Protect from moisture. Wear protective gloves / protective clothing / eye protection / face protection. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. In case of fire: Evacuate area.

Supplemental Hazard Information (EU) EUH014

Reacts violently with water.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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