

	<b>SAFETY DATA SHEET</b>	Page : 1/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Commercial Product Name : Bolan Bar  
 Chemical name of the substance : Barium sulfate, BaSO<sub>4</sub>  
 EC No : 231-784-4  
 CAS No. : 7727-43-7

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

Main use category : Industrial use  
 Specific use(s) : Drilling applications : Oil and gas well exploration drilling.

### 1.3. Details of the supplier of the safety data sheet

Company : Bolan Mining Enterprises  
 BME, House 3B & 8B Model Town, Quetta, Balochistan, 83700  
 Pakistan  
 Tel.+92-81-2836169-172  
 Fax:+92-81-2838207  
 E-mail address:RM@bme.com.pk

### 1.4. Emergency telephone number

Emergency telephone : +92-81-2836169-172 (This telephone number is available during office hours only.)

IRELAND (REPUBLIC OF)

National Poisons Information Centre  
 Beaumont Hospital

+353 1 8379964

UNITED KINGDOM

National Poisons Information Service  
 (Birmingham Centre)  
 City Hospital

+44 (0) 870 600 6266 (UK only)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### 2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification : Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Not classified

#### 2.1.2. Classification according to EU Directives 67/548/EC or 1999/45/EC

Classification : Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Not classified

### 2.2. Label elements

#### 2.2.1. Labelling according to Regulation (EU) 1272/2008

Not applicable.

#### 2.2.2. Labelling according to Directives (67/548 - 1999/45)

	<b>SAFETY DATA SHEET</b>	Page : 2/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

Not relevant

### 2.3. Other hazards

Other hazards which do not result in classification : This substance is not considered to be very persistent nor very bioaccumulating (vPvB).  
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Barium sulfate	(CAS No.) 7727-43-7 (EC No) 231-784-4 (EC Index) -	80 - 95	Not classified
Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Barium sulfate	(CAS No.) 7727-43-7 (EC No) 231-784-4 (EC Index) -	80 - 95	Not classified

Full text of R-, H- and EUH-phrases: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation : Keep at rest.  
Move to fresh air.  
Call a physician if irritation develops or persists.

Skin contact : Wash off with soap and water.  
If skin irritation persists, call a physician.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
If eye irritation persists, consult a specialist.

Ingestion : Rinse mouth.  
Drink plenty of water  
If you feel unwell, seek medical advice.

Additional advice : First aider needs to protect himself.  
See also section 8  
Never give anything by mouth to an unconscious person.  
Show this safety data sheet to the doctor in attendance.  
Treat symptomatically.

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

Inhalation : No adverse effects are expected. May cause irritation of respiratory tract.

Skin contact : No adverse effects are expected. May be irritating.

Eye contact : Dust contact with the eyes can lead to mechanical irritation.

Ingestion : Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache).

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

No data available

	<b>SAFETY DATA SHEET</b>	Page : 3/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>), Dry chemical, Water spray, Alcohol-resistant foam  
 Extinguishing media which shall not be used for safety reasons : High volume water jet

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

Fire hazard : The product is not flammable.  
 Specific hazards : Risk of dust explosion.  
 Possible decomposition products are: CO<sub>x</sub>, SO<sub>x</sub>, BaO<sub>x</sub>.

### 5.3. Advice for firefighters

Advice for firefighters : Evacuate personnel to safe areas.  
 Special protective equipment for firefighters :  
 In the event of fire, wear self-contained breathing apparatus.  
 Avoid dust formation.  
 Remove all sources of ignition.  
 Cool containers / tanks with water spray.  
 Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

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

Advice for non-emergency personnel : Ensure adequate ventilation.  
 Evacuate personnel to safe areas.  
 Avoid dust formation.  
 Remove all sources of ignition.  
 Wear personal protective equipment.  
 See also section 8  
 Avoid contact with eyes.  
 Do not breathe dust.  
 Take precautionary measures against static discharges.  
 Advice for emergency responders : Only qualified personnel equipped with suitable protective equipment may intervene.

### 6.2. Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Material can create slippery conditions.  
 Sweep up or vacuum up spillage and collect in suitable container for disposal.  
 Dispose of in accordance with local regulations.

### 6.4. Reference to other sections

See also section 8  
 See also section 13.

	<b>SAFETY DATA SHEET</b>	Page : 4/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Handling : Ensure adequate ventilation.  
Do not breathe dust.  
Avoid contact with eyes.  
Wear personal protective equipment.  
See also section 8.  
Take any precaution to avoid mixing with Incompatible materials.  
See also section 10  
Keep away from heat and sources of ignition.  
Avoid dust formation.  
Take care to avoid waste and spillage when weighing, loading and mixing the product.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
Wash hands and face before breaks and immediately after handling the product.  
Keep away from food, drink and animal feeding stuffs.

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

- Storage : Keep containers tightly closed in a dry, cool and well-ventilated place.  
Avoid dust formation.  
Do not store near or with any of the incompatible materials listed in section 10.  
Keep away from open flames, hot surfaces and sources of ignition.
- Packaging material : Store in original container. Polypropylene Woven Jumbo bag.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3. Specific end use(s)

No data available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

- Exposure limit(s) :
- Component** : **Barium sulfate (7727-43-7)**  
TLV-TWA (mg/m<sup>3</sup>) : 10 (BE, ES); 4 resp/10 inh (GB); 1,5 resp/4 inh (NL)
- Recommended monitoring procedures : Personal monitoring  
Concentration measurement in air

### 8.2. Exposure controls

- Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection : not required under normal use.  
In case of insufficient ventilation wear suitable respiratory equipment.  
Effective dust mask. (EN 149).  
Respirator with a half face mask (EN 140)  
Respirator with a full face mask (EN 136)  
Recommended Filter type: P (EN 143)
- Hand protection : Protective gloves (EN 374) may be used. The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such

	<b>SAFETY DATA SHEET</b>	Page : 5/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

	as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves. Neoprene gloves, natural rubber gloves, PVC.
Eye protection	: Safety glasses (EN166)
Thermal hazard protection	: not required under normal use.
Engineering measures	: Use only in area provided with appropriate exhaust ventilation. Organisational measures to prevent /limit releases, dispersion and exposure See also section 7
Environmental exposure controls	: Do not flush into surface water or sanitary sewer system. Comply with applicable Community environmental protection legislation.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	: powder (200 mesh), ore / lumps (0-325 mm)
Colour	: brown, grey
Odour	: odourless
Melting point/range	: 1580 °C
Boiling point/boiling range	: not applicable
Flash point	: not applicable
Evaporation rate	: not applicable
Vapour density	: not applicable
Relative density	: 4.20-4.25 mg/cm <sup>3</sup>
Water solubility	: slightly soluble
Partition coefficient: n-octanol/water	: no data available
Explosive properties	: not applicable The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidizing properties	: not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

### 9.2. Other information

Other data	: Barium content 80% to 95%
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	: Stable under normal conditions. See also section 10.5
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### 10.2. Chemical stability

Stability	: Stable under normal conditions.
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### 10.3. Possibility of hazardous reactions

Hazardous reactions	: Potential dust explosion hazard.
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	<b>SAFETY DATA SHEET</b>	Page : 6/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

#### **10.4. Conditions to avoid**

Conditions to avoid : Keep away from heat and sources of ignition.  
 Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.  
 Avoid moisture.  
 See also section 7

#### **10.5. Incompatible materials**

Incompatible materials : None known.

#### **10.6. Hazardous decomposition products**

Hazardous decomposition products : Burning produces noxious and toxic fumes. : COx, SOx, BaOx.

### **11. TOXICOLOGICAL INFORMATION**

#### **11.1. Information on toxicological effects**

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)  
 Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)  
 Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)  
 Respiratory/skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)  
 Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)  
 Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)  
 Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)  
 Specific target organ toxicity (single exposure) : Not classified (Based on available data, the classification criteria are not met.)  
 Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met.)  
 Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

### **12. ECOLOGICAL INFORMATION**

#### **12.1. Toxicity**

Ecotoxicity effects : Ecological injuries are not known or expected under normal use.

#### **12.2. Persistence and degradability**

Persistence and degradability : No data available

#### **12.3. Bioaccumulative potential**

Bioaccumulation : Low potential  
 Partition coefficient: n-octanol/water : no data available

#### **12.4. Mobility in soil**

Mobility : Insoluble.

	<b>SAFETY DATA SHEET</b>	Page : 7/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

**12.5. Results of PBT and vPvB assessment**

PBT/vPvB : This substance is not considered to be very persistent nor very bioaccumulating (vPvB).  
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

**12.6. Other adverse effects**

Further information : No data available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste from residues / unused products : Handle with care.  
See also section 7  
Handling and storage  
Where possible recycling is preferred to disposal or incineration.  
Collect and dispose of waste product at an authorised disposal facility.  
Dispose of in accordance with local regulations.

Contaminated packaging : Do not burn, or use a cutting torch on, the empty drum.  
Dispose of in accordance with local regulations.

Additional ecological information : Do not flush into surface water or sanitary sewer system.

Waste codes / waste designations according to EWC / AVV : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

**SECTION 14: Transport information**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU-Regulations**

Restrictions on use : not applicable

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC. : none

Authorisations : not applicable

**15.1.2. National regulations**

not applicable

**15.2. Chemical safety assessment**

Chemical Safety Assessment : Not required

**SECTION 16: Other information**

Sources of key data used to compile : ECB.

	<b>SAFETY DATA SHEET</b>	Page : 8/ 9
		Revision nr : 1
	<b>Bolan Bar</b>	Issuing date : 29/05/2012
		Supersedes :

the datasheet

Abbreviations and acronyms

Supplier msds.

: ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods Code

LEL = Lower Explosive Limit/Lower Explosion Limit

UEL = Upper Explosion Limit/Upper Explosive Limit

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

Only for BME website



	<b>SAFETY DATA SHEET</b>	Page : 9/ 9
	<b>Bolan Bar</b>	Revision nr : 1
		Issuing date : 29/05/2012
		Supersedes :

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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