

SAFETY DATA SHEET

SECTION 1 IDENTIFICATION

Product Name: Borate Zirconium Crosslinker

Other Name:

Details of the supplier of the safety data sheet

Registered company name: Qingdao Lead Oilfield Solutions Co., Ltd

Address : NO. 143, Zhuzhou Rd, Laoshan, Qingdao, China

Fax : 86-532-58092993

Emergency telephone number: 86-532-58092993

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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GHS Label elements, including precautionary statements

Composition/specific chemical identities are withheld as a trade secret under the provisions of OSHA hazard communication standard 29 CFR 1910.1200

Signal word: Mixture
Health hazard:
Flammability: 0
Physical hazards: 0

Hazard statement(s):

Precautionary statement(s):

Prevention: /

Response: /

Storage: Store locked up.

Disposal: Dispose of contents/container to relevant regulations.

Other hazards which do not result in classification

WARNING

Combustible. Harmful: may cause lung damage if swallowed. Irritating to eyes. This product contains naphthalene. The International Agency for Research on Cancer (IARC) has evaluated naphthalene and determined it to be possibly carcinogenic to humans (Group 2B, based on sufficient evidence in experimental animals and inadequate evidence in humans).

Keep away from heat. Keep away from sources of ignition - No smoking. Keep container tightly closed. Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid breathing vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water.

Wear suitable protective clothing, gloves and eye/face protection.

Fire Hazard Keep away from heat and sources of ignition. Flash back possible over considerable distance.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Boric acid	10043-35-3	5-15
Zirconium oxychloride	7699-43-6	5-15
Glycerin	56-81-5	10-20
Water	7732-18-5	50-60

SECTION 4 FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

Description of necessary first aid measures

If inhaled:	Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
In case of skin contact:	Wash thoroughly with soap and water; flush with plenty of water. Take off spoilt clothes. Contact physician if symptoms persist.
In case of eye contact:	Rinse immediately with plenty of water for 10 minutes at least. Contact a physician if symptoms persist.
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed:	/

Indication of immediate medical attention and special treatment needed

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SECTION 5 FIREFIGHTING MEASURES

Suitable extinguishing media:	CO ₂ , foam, dry chemicals.
Special hazards arising from the chemical:	/
Special protective actions for fire-fighters:	Containers can build up pressure if exposed to heat (fire). As in any fire, wear a self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent) and full protective gear. Apply alcohol-type foam or all purpose foam manufacturers recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires. Use water spray to keep containers cool.
Hazards compound:	/

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use individual protective equipment (waterproof boots, suitable protective clothing, safety glasses). Prevent any contact with hot surfaces. Do not approach facing the wind.
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Environmental precautions:	Keep away from drains, surface and groundwater and soil.
Methods and materials for containment and cleaning up:	Contain spilled material. Cover with an inert, noncombustible, inorganic absorbent material, or sweep up, and remove to an approved disposal container. Avoid open flames or other sources of ignition.
Reference to other sections	/

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling:	Apply according to good manufacturing and industrial hygiene practices with proper ventilation. Do not drink, eat or smoke while handling. Respect good personal hygiene.
FIRE PROTECTION	Keep away from ignition sources and naked flame
Conditions for safe storage, including any incompatibilities:	Store in cool, dry and ventilated area away from heat sources and protected from light in tightly closed original container. Keep air contact to a minimum.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION:	Ensure good ventilation of the work station.
EDC:	/
Personal protective equipment	
Eye/face protection:	Wash hands with soap and water after handling.
Skin protection:	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hands protection:	Avoid skin contact. Use chemical resistant gloves as needed.
Respiratory protection:	Avoid to breath directly on the product. Apply local ventilations when appropriate. Use a NOISH/MSHA approved air purifying respirator with an organic/amine vapor cartridge when airborne concentration is expected to exceed exposure limits.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light Yellow Liquid
Odor:	Odorless
pH:	8.0 – 11.0
Freezing point:	/
Initial boiling point and boiling range:	/
Boiling point:	/
Solubility in water:	Soluble
Specific Gravity:	1.15~1.30 (25°C)

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Oxides of Carbon
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Chemical stability:	Stable under normal temperature conditions
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Heat, flames and other sources of ignition
Incompatible materials:	Avoid contact with strong acids and strong oxidizers.
Hazardous decomposition products:	

SECTION 11 TOXICOLOGICAL INFORMATION

Acute health effects

Ingestion:	Accidental ingestion of the material is harmful. The material can cause respiratory irritation in some persons.
Inhalation:	The body's response to such irritation can cause further lung damage.
LD 50 ORAL/RAT (mg/Kg):	/ mg/kg (Rat)
LD 50 DERMAL/RABBIT (mg/Kg):	/ mg/kg (Rabbit)
Chronic health effects:	/

Numerical measures of toxicity(such as acute toxicity estimates):

/

SECTION 12 ECOLOGICAL INFORMATION

Toxicity:	/
Persistence and degradability:	/
Bio accumulative potential:	No
Mobility in soil:	/
Other adverse effects:	/

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods:	In accordance with local environmental laws. Avoid disposing into drainage systems and into the environment.
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SECTION 14 TRANSPORT INFORMATION

ROAD (DoT/ADR/RID)	Not Regulated
ADR class:	
UN proper shipping name:	
Transport hazard class(es):	/
Packaging group:	
Environmental hazards:	/
Special precautions for user:	/

SECTION 15 REGULATORY INFORMATION

CERCLA – SARA HAZARD CATEGORY:

SECTION 311/312: This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: NONE

SARA SECTION 313: This product does not contain substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372; COMPONENT CAS# % BY WEIGHT: None

TSCA STATUS: All components of this product are listed on the Toxic Substance Control Act Inventory or are excluded from the listing requirements.

SECTION 16 OTHER INFORMATION

References:

Our company provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This MSDS sheet is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.