

## Safety Data Sheet EB-Clean\* J479 LT Encapsulated Breaker

### 1. Identification of the substance/preparation and of the Company/undertaking

#### 1.1 Product identifier

Product name EB-Clean\* J479 LT Encapsulated Breaker  
Product code J479

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

Recommended use Used as a fracturing additive in oilfield applications

Uses advised against None known.

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

Supplier identification  
Schlumberger Oilfield UK PLC  
Victory House, Churchill Court  
Manor Royal, Crawley  
West Sussex RH10 9LU  
+ 47 920 12570  
SDS@slb.com

#### 1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, Middle East and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
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### 2. Hazards Identification

#### 2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

##### Health hazards

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitisation	Category 1
Skin sensitisation	Category 1
Specific target organ toxicity (single exposure)	Category 3

Environmental hazards Not classified

##### Physical Hazards

Oxidizing Solids	Category 3
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## 2.2 Label Elements



### Signal word

DANGER

### Hazard statements

H272 - May intensify fire; oxidizer

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation

### Precautionary Statements - EU ( 28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 - Wear protective gloves/protective clothing and eye/face protection

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### Supplementary precautionary statements

P221 - Take any precaution to avoid mixing with combustibles

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention

P337 + P313 - If eye irritation persists: Get medical advice/attention

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician

P362 - Take off contaminated clothing and wash before reuse

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P501 - Dispose of contents/container to an approved waste disposal plant

The substance/preparation is non-dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments

### Indication of danger

Xn - Harmful

O - Oxidizing

### R-code(s)

Xn;R22 - Xi;R36/37/38 - R42/43 - O;R8

### Contains

Diammonium peroxidisulphate

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.*

### 2.3 Other data

Not classified as PBT/vPvB by current EU criteria

#### **Australian statement of hazardous/dangerous nature**

Classified as Hazardous according to the criteria of NOHSC.

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

## 3. Composition/information on Ingredients

### 3.1 Substances

Not Applicable

### 3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
Diammonium peroxidisulphate	231-786-5	7727-54-0	60 - 100	O; R8, Xn; R22, Xi; R36/37/38, R42/43	STOT SE 3 (H335) Skin Irrit. 2 (H315) Ox. Sol 3 (H272) Acute Tox. 4 (H302) Skin Sens. 1 (H317) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334)	01-2119495973-19-x xxx

#### **Comments**

The product contains other ingredients which do not contribute to the overall classification.

## 4. First aid measures

### 4.1 Description of first-aid measures

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration. Obtain medical attention.
<b>Ingestion</b>	Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. Get immediate medical attention.
<b>Eye contact</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Seek immediate medical attention/advice.

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

**General advice** The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms develop, the casualty should be transferred to hospital as soon as possible.

### **Main symptoms**

**Inhalation** Please see Section 11. Toxicological Information for further information.

**Ingestion** Please see Section 11. Toxicological Information for further information.

**Skin contact** Please see Section 11. Toxicological Information for further information.

**Eye contact** Please see Section 11. Toxicological Information for further information.

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

**Notes to physician** Treat symptomatically.

## **5. Fire-fighting measures**

### 5.1 Extinguishing media

#### **Suitable extinguishing media**

Deluge with water. Other methods not effective.

#### **Extinguishing media which shall not be used for safety reasons**

Do not use foam, carbon dioxide or dry powder.

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

#### **Precautions against fire and explosion**

H272 - May intensify fire; oxidiser.

#### **Hazardous combustion products**

When heated strongly or burned, oxides of carbon and harmful organic chemical fumes are released.

### 5.3 Advice for firefighters

#### **Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

#### **Special**

Oxidizer.

#### **Hazchem code ADG**

1Z

## **6. Accidental release measures**

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

Wear suitable protective equipment. See also section 8. Do not breathe dust. Avoid dust formation. Remove all sources of ignition.

## 6.2 Environmental precautions

Prevent further leakage or spillage. Keep out of waterways.

### **Environmental exposure controls**

Avoid release to the environment.

## 6.3 Methods and materials for containment and cleaning up

### **Methods for cleaning up**

Avoid dust formation. Use non-sparking tools and equipment. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

## 6.4 Reference to other sections

See section 13 for more information.

## 7. Handling and Storage

### 7.1 Precautions for safe handling

#### **Handling**

Avoid breathing dust; if exposed to high dust concentration, leave area immediately. Avoid contact with skin and eyes. Avoid handling causing generation of dust. Keep away from open flames, hot surfaces and sources of ignition.

#### **Hygiene measures**

Use good work and personal hygiene practices to avoid exposure. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing. Do not eat, drink or smoke when using this product.

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

**Technical measures/precautions** Provide appropriate exhaust ventilation at places where dust is formed. Keep away from heat, sparks, and flame. Keep containers in cool areas out of direct sunlight and away from combustibles.

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible with strong acids and bases Strong reducing agents. Heavy metals Protect from moisture

**Storage class** Chemical storage.

### 7.3 Specific end uses

See also Section 1.2.

## 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

Component	EU OEL - Third List	Austria	Australia	Denmark
Diammonium peroxodisulphate	Not determined	Not determined	Not determined	Not determined

Component	Finland	France	Germany	Hungary
Diammonium peroxodisulphate	Not determined	Not determined	Not determined	Not determined

Component	New Zealand	Italy	Netherlands	Norway
Diammonium peroxodisulphate		Not determined	Not determined	Not determined

Component	Poland	Portugal	Romania	Russia
Diammonium peroxodisulphate	Not determined	Not determined	Not determined	Not determined

Component	Spain	Switzerland	Turkey	UK
Diammonium peroxodisulphate	0.1 mg/m <sup>3</sup> VLA-ED	Not determined	Not determined	Not determined

Component	ACGIH TLV	TWA / C
Diammonium peroxodisulphate	Not Determined	Not Determined

### Notes

No biological limit allocated

### Derived No Effect Level (DNEL)

#### Short term exposure local effects

##### Diammonium peroxodisulphate

Dermal 2.248 mg/cm<sup>2</sup>

#### Long term exposure local effects

##### Diammonium peroxodisulphate

Dermal 0.102 mg/cm<sup>2</sup>

Inhalation 2.06 mg/m<sup>3</sup>

#### Short term exposure systemic effects

##### Diammonium peroxodisulphate

Dermal 400 mg/kg bw/day

Inhalation 590 mg/m<sup>3</sup>

#### Long term exposure systemic effects

##### Diammonium peroxodisulphate

Dermal 18.2 mg/kg bw/day

Inhalation 2.06 mg/m<sup>3</sup>

#### Predicted No Effect Concentration (PNEC)

##### Diammonium peroxodisulphate

Fresh Water 0.0763 mg/L

Sea Water 0.011 mg/L

Fresh water sediment 0.275 mg/kg

Sea sediment 0.0396 mg/kg

Soil 0.015 mg/kg

Impact on Sewage Treatment 3.6 mg/L

Intermittent release 0.763 mg/L

### 8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

**Engineering measures to reduce exposure**

Ensure adequate ventilation. Local exhaust ventilation.

**Personal protective equipment**

**Eye protection**

Wear dust resistant safety goggles where there is a danger of eye contact.

**Hand protection**

Repeated or prolonged contact: Impervious gloves made of: PVC, Rubber.

**Respiratory protection**

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust), Effective dust mask, Type A/P2.

**Skin and body protection**

Wear appropriate personal protective clothing to prevent skin contact, Eye wash and emergency shower must be available at the work place.



## 9. Physical and Chemical Properties

**9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	Solid
<b>Appearance</b>	Granules
<b>Odour</b>	Sweet
<b>Colour</b>	White
<b>Odor threshold</b>	Not applicable

Property	Values	Remarks
pH		
pH @ dilution	6.5 - 8	@ 10g/l
Melting/freezing point		
Boiling point/range	No information available	
Flash Point	No information available	
Evaporation rate		
Flammability (solid, gas)	Not applicable	
Flammability Limits in Air		
Upper flammability Limit	Not applicable	
Lower flammability limit	Not applicable	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	1.8 @ 20°C	
Bulk density	1150 kg/m <sup>3</sup>	
Relative density	No information available	
Water solubility	Insoluble in water	
Solubility in other solvents	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity		
Viscosity, dynamic	No information available	
Log Pow	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

**9.2 Other information**

<b>Pour point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content(%)</b>	No information available
<b>Density VALUE</b>	No information available

**10. Stability and Reactivity****10.1 Reactivity**

H272 - May intensify fire; oxidiser.

**10.2 Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3 Possibility of Hazardous Reactions****Hazardous polymerization**

Hazardous polymerisation does not occur.

**10.4 Conditions to avoid**

Heat, flames and sparks. Avoid strong sunlight. Protect from moisture.

**10.5 Incompatible materials**

Incompatible with strong acids and bases. Strong reducing agents. Heavy metals. Combustible materials.

**10.6 Hazardous decomposition products**

When heated strongly or burned, oxides of carbon and harmful organic chemical fumes are released.

**11. Toxicological Information****11.1 Information on toxicological effects****Acute toxicity****Product information**

HARMFUL IF SWALLOWED. May produce an allergic reaction.

**Inhalation**

Inhalation of dust in high concentration may cause irritation of respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Eye contact**

Causes serious eye irritation.

**Skin contact**

May cause sensitization by skin contact. Prolonged contact may cause redness and irritation.

**Ingestion**

Harmful if swallowed.

**Acute toxicity**

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Component	LD50 Oral	LD50 Dermal	LD50 Inhalation
Diammonium peroxidisulphate	= 495 mg/kg ( Rat )	No data available	= 520 mg/L ( Rat ) 1 h

<b>Sensitisation</b>	No information available.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>Routes of exposure</b>	Inhalation.
<b>Routes of entry</b>	No route of entry noted.
<b>Specific target organ toxicity (single exposure)</b>	Category 3
<b>Specific target organ toxicity (repeated exposure)</b>	Not classified.
<b>Aspiration hazard</b>	Not Applicable.

## 12. Ecological Information

### 12.1 Toxicity

Ecotoxicity effects

#### **Toxicity to algae**

This product is not considered toxic to algae.

#### **Toxicity to fish**

Not considered toxic to fish.

#### **Toxicity to daphnia and other aquatic invertebrates**

Not considered toxic.

Component	Toxicity to fish	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates
Diammonium peroxidisulphate 7727-54-0 ( 60 - 100 )	323 mg/L LC50 (Poecilia reticulata) = 96 h 76.3 mg/L LC50 (Oncorhynchus mykiss) = 96 h 103 mg/L LC50 (Lepomis macrochirus) = 96 h	No information available	120 mg/L EC50 (Daphnia magna) = 48 h

### 12.2 Persistence and degradability

No data is available on the product itself.

### 12.3 Bioaccumulative potential

There is no data available for this product.

## 12.4 Mobility in soil

### **Mobility**

Insoluble in water.

## 12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

## 12.6 Other adverse effects.

None known.

## 13. Disposal Considerations

### 13.1 Waste treatment methods

#### **Waste from residues / unused products**

Dispose of in accordance with local regulations.

#### **Contaminated packaging**

If recycling is not practicable, dispose of in compliance with local regulations. Dispose of contents/container to an approved waste disposal plant.

#### **EWC waste disposal No.**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions: EWC waste disposal No: 16 10 01

## 14. Transport Information

### 14.1 UN number

<b>UN/ID No. (ADR/RID/ADN/ADG)</b>	UN 1444
<b>UN/ID no</b>	UN 1444
<b>UN No. (ICAO)</b>	UN 1444

### 14.2 Proper shipping name

AMMONIUM PERSULFATE,

### 14.3. Hazard class(es)

<b>Hazard class</b>	5.1
<b>IMDG Page</b>	5.1
<b>ICAO = International Civil Aviation Organization</b>	5.1

### 14.4 Packing group

<b>Packing group</b>	III
<b>Packing group</b>	III
<b>ICAO Packing group</b>	III



## 14.5 Environmental hazard

### Marine pollutant

No

## 14.6 Special precautions

Hazard ID	50
EmS	F-A, S-Q
Tunnel restriction code	E
Hazchem code ADG	1Z

## 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Please contact SDS@slb.com for info regarding transport in Bulk.

## 15. Regulatory Information

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

Germany, Water Endangering Hazardous to water/Class 1  
Classes (VwVwS)

### Australian Standard for the Uniform Scheduling of Drugs and Poisons

Diammonium peroxidisulphate  
Schedule 6

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)].

National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004) 3rd Edition].

National Occupational Health and Safety Commission's Exposure Standards for Atmospheric Contaminants in the occupational Environment [NOHSC:1003 (1995)].

Safe Work Australia.

**Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).**

**ADG Code – Australian Dangerous Goods Code.**

**Dutch Mining Regulations: In accordance with Mining Regulations 9.2 and Chapter 4 of the Working Conditions Decree.**

**International inventories**

<b>USA, Toxic Substances Control Act inventory (TSCA)</b>	Complies
<b>European Union - EINECS and ELINCS</b>	Complies
<b>Canada, Domestic Substance List (DSL)</b>	Complies
<b>Philippines (PICCS)</b>	Complies
<b>Inventory - Japan - Existing and New Chemicals list</b>	Complies
<b>China (IECSC)</b>	Complies
<b>Australia (AICS)</b>	Complies
<b>Korea (KECL)</b>	Complies
<b>Inventory - New Zealand - Inventory of Chemicals (NZIoC)</b>	Complies

**U.S. Federal and State Regulations**

Component	SARA 302 / TPQs	SARA 313	CERCLA RQ
Diammonium peroxodisulphate	N/A	N/A	N/A

**15.2 Chemical Safety Report**

No information available

**16. Other Information**

<b>Prepared by</b>	Global Chemical Regulatory Compliance (GCRC)
<b>Supersedes date</b>	05/Apr/2011
<b>Revision date</b>	26/May/2014
<b>Version</b>	2
<b>The following sections have been revised</b>	SDS fully updated in the new database, Updated according to GHS.

**Text of R phrases mentioned in Section 3**

R 8 - Contact with combustible material may cause fire.  
R22 - Harmful if swallowed

R36/37/38 - Irritating to eyes, respiratory system and skin  
R42/43 - May cause sensitization by inhalation and skin contact

**Full text of H-Statements referred to under sections 2 and 3**

H272 - May intensify fire; oxidizer  
H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335 - May cause respiratory irritation

#### **Disclaimer**

**The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**