

## 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**

Schlumberger Oilfield Australia Pty Ltd  
ABN: 74 002 459 225  
ACN: 002 459 225  
256 St. Georges Terrace, Perth WA 6000  
+47 5157 7424  
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

#### 2. Hazards identification

##### 2.1 Classification of the substance or mixture

**Classification according to (EC) No. 1272/2008**

**Health hazards**

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	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 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/ vapors/ 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 peroxodisulphate

*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.

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<b>Ingestion</b>	Please see Section 11. Toxicological Information for further information.
<b>Skin contact</b>	Please see Section 11. Toxicological Information for further information.
<b>Eye contact</b>	Please see Section 11. Toxicological Information for further information.

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

<b>Notes to physician</b>	Treat symptomatically.
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### **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**

##### **Unusual fire and explosion hazards**

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 precautions** 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 Section 1.2.

**8. Exposure controls/personal protection****8.1 Control parameters**

Component	EU OEL	Austria	Australia	Denmark
Diammonium peroxidisulphate	Not determined	Not determined	Not determined	Not determined

  

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

  

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

  

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

  

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

  

Component	ACGIH TLV	OSHA PEL
Diammonium peroxidisulphate	Not Determined	Not Determined

**Notes**

No biological limit allocated

**Derived No Effect Level (DNEL)****Short term exposure local effects**

**Diammonium peroxidisulphate**  
Dermal 2.248 mg/cm<sup>2</sup>

**Long term exposure local effects**

**Diammonium peroxidisulphate**  
Dermal 0.102 mg/cm<sup>2</sup>  
Inhalation 2.06 mg/m<sup>3</sup>

**Short term exposure systemic effects**

**Diammonium peroxidisulphate**  
Dermal 400 mg/kg bw/day  
Inhalation 590 mg/m<sup>3</sup>

**Long term exposure systemic effects**

**Diammonium peroxidisulphate**  
Dermal 18.2 mg/kg bw/day  
Inhalation 2.06 mg/m<sup>3</sup>

**Predicted No Effect Concentration (PNEC)**

**Diammonium peroxidisulphate**  
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**

Physical state	Solid
Appearance	Granules
Odor	Sweet
Color	White
Odor threshold	Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		
pH @ dilution	6.5 - 8	@ 10g/l
Melting/freezing point		
Boiling point/range	No information available	
Flash point	No information available	
Evaporation rate (BuAc =1)		
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		
Dynamic viscosity	No information available	
Log Pow	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

**9.2 Other information**

Pour point	No information available
Molecular weight	No information available
VOC content(%)	No information available
Density	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 polymerization 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 peroxodisulphate	= 495 mg/kg ( Rat )	No data available	= 520 mg/L ( Rat ) 1 h

##### **Sensitization**

No information available.

##### **Mutagenic effects**

No information available.

##### **Carcinogenicity**

No information available.

##### **Reproductive toxicity**

No information available.

##### **Routes of exposure**

Inhalation.

##### **Routes of entry**

No route of entry noted.

##### **Specific target organ toxicity (single exposure)**

Category 3

##### **Specific target organ toxicity (repeated exposure)**

Not classified.

##### **Aspiration hazard**

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 peroxodisulphate 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**

UN/ID No. (ADR/RID/ADN/ADG)	UN 1444
UN No. (IMDG)	UN 1444
UN No. (ICAO)	UN 1444

**14.2 Proper shipping name**

AMMONIUM PERSULFATE,

**14.3 Hazard class(es)**

ADR/RID/ADN Hazard class	5.1
IMDG Hazard class	5.1
ICAO Hazard class/division	5.1

**14.4 Packing group**

ADR/RID/ADN Packing Group	III
IMDG Packing group	III
ICAO Packing group	III

**14.5 Environmental hazard****Marine pollutant**

No

**14.6 Special precautions**

Hazard identification no (ADR)	50
EmS (IMDG)	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**

<b>Germany, Water Endangering Classes (VwVwS)</b>	Hazardous to water/Class 1
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**Australian Standard for the Uniform Scheduling of Drugs and Poisons**

Diammonium peroxodisulphate  
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

USA (TSCA)	Complies
European Union (EINECS and ELINCS)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Complies
China (IECSC)	Complies
Australia (AICS)	Complies
Korean (KECL)	Complies
New Zealand (NZIoC)	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

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

**Text of R phrases mentioned in Section 2 and 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 guidance 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.**