

## Safety Data Sheet PolyBreak 2

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### SECTION 1: Identification

#### 1.1 Product identifier

Product name PolyBreak 2

Product number PB2

#### 1.3 Recommended use of the chemical and restrictions on use

For industrial use only. Polymer breaker.

#### 1.4 Supplier's details

Name Downhole Chemical Solutions  
Address 1 Cowboys Way #572  
Frisco, Texas 75034

Telephone 469-466-1100

#### 1.5 Emergency phone number(s)

1-800-255-3924 US (ChemTel)  
1-813-248-0585 International (ChemTel)

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### SECTION 2: Hazard identification

#### 2.1 Classification of the substance or mixture

**GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)**

- Oxidizing solids, Cat. 2
- Acute toxicity, oral, Cat. 3
- Acute toxicity, dermal, Cat. 2
- Acute toxicity, inhalation, Cat. 2
- Skin corrosion/irritation, Cat. 1B
- Eye damage/irritation, Cat. 1
- Specific target organ toxicity (repeated exposure), Cat. 2
- Acute hazards to the aquatic environment, Cat. 1
- Long-term hazards to the aquatic environment, Cat. 3

#### 2.2 GHS label elements, including precautionary statements

##### Pictogram



##### Signal word

**Danger**

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### Hazard statement(s)

H272	May intensify fire; oxidizer
H301	Toxic if swallowed
H310	Fatal in contact with skin
H330	Fatal if inhaled
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H373	May cause damage to organs [Spleen] through prolonged or repeated exposure [Oral]
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

### Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220	Keep/Store away from clothing/.../combustible materials.
P221	Take any precaution to avoid mixing with combustibles - flammables
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P310	Immediately call a POISON CENTER or doctor.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use carbon dioxide (CO2), powder, alcohol-resistant foam to extinguish
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with national regulations.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Hazardous Components	Concentration
Sodium chlorite (CAS no.: 7758-19-2; EC no.: 231-836-6)	80 % (weight) *
Sodium chloride (CAS no.: 7647-14-5; EC no.: 425-740-5)	20 % (weight) *

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### Trade secret statement (OSHA 1910.1200(i))

\*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.  Acute and delayed symptoms and effects: Fatal if inhaled.
In case of skin contact	Immediately call a poison center or doctor/physician. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Rinse skin with water/shower.  Acute and delayed symptoms and effects: Fatal in contact with skin.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.  Acute and delayed symptoms and effects: Causes serious eye damage.
If swallowed	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.  Acute and delayed symptoms and effects: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

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## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Foam. Dry powder. Carbon dioxide. Water spray. Sand. Do not use a heavy water stream.

### 5.2 Specific hazards arising from the chemical

May intensify fire; oxidizer. Fire may produce hydrogen chloride gas and sodium oxides

### 5.3 Special protective actions for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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## SECTION 6: Accidental release measures

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

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust/fume/gas/mist/vapors/spray. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection see section 8.

### 6.2 Environmental precautions

Do not contaminate water

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

Stop leak if you can do it without risk. Minimize dust generation. Sweep up and shovel into suitable containers for disposal.

#### Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. See Section 8 for information on Personal Protective Equipment.

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

Use proper grounding procedures to avoid static electricity. Comply with applicable regulations. Keep only in the original container in a cool, well ventilated place away from: Heat sources, Ignition sources, Direct sunlight, incompatible materials, combustible materials. Keep in fireproof place. Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep/Store away from clothing/combustible materials.

#### Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

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## SECTION 8: Exposure controls/personal protection

### 8.2 Appropriate engineering controls

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Safety glasses with side shields or goggles. If splash hazard, wear faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Ensure that eyewash stations and/or safety showers are close to the workstation

#### Skin protection

Wear protective gloves, such as PVC or other plastic material. Consult manufacturer specifications for further information.

#### Body protection

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Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

### Thermal hazards

No data available.

### Environmental exposure controls

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	White powder
Odor	Odorless
Odor threshold	No data available.
pH	10.0-11.0
Melting point/freezing point	- 12 F
Initial boiling point and boiling range	No data available.
Flash point	>212 F
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	3.1 at 20 °C
Relative density	10.0
Specific Gravity	1.2
Solubility(ies)	Soluble in water. Water: 39 g/100ml
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	180 °C
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	May intensify fire; oxidizer.
Activity	10%
<b>Other safety information</b>	
No data available.	

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Thermal decomposition generates corrosive vapors.

### 10.2 Chemical stability

Stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

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Direct sunlight. Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

### 10.5 Incompatible materials

Strong reducing agents, Powdered metals, Phosphorus, Sulphur compounds, Zinc, Ammonia, Organic materials, acids, Amines

### 10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Hydrogen chloride. Sodium oxide.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Information on the product as supplied:

ATE US (oral): 165 mg/kg

ATE US (dermal): 62.5 mg/kg

ATE US (dust/mist): 0.288 mg/l (4h)

Symptoms (including delayed and immediate effects):

Inhalation: Fatal if inhaled.

Ingestion: Toxic if swallowed.

Dermal: Fatal in contact with skin.

Components:

Sodium chloride

LD50 Oral - Rat - 3,550 mg/kg

LD50 Skin - Rabbit - > 10,000 mg/kg

LD50 Inhalation - Rat - > 42,000 mg/m<sup>3</sup> - 1 hr

Sodium chlorite

LD50 Oral - Rat - 284 mg/kg

LD50 Skin - Rabbit - 134 mg/kg

LC50 Inhalation - Rat - 0.23 mg/l - 4 h

#### Skin corrosion/irritation

Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

#### Serious eye damage/irritation

Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

#### Respiratory or skin sensitization

No data available.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium chlorite)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

No data available.

#### STOT-single exposure

No data available.

#### STOT-repeated exposure

Information on the product as supplied:  
May cause damage to organs through prolonged or repeated exposure

Components:

Sodium chlorite

LOAEL Oral - Rat - 25 mg/kg. May cause damage to organs through prolonged or repeated exposure. - spleen

#### Aspiration hazard

No data available.

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## SECTION 12: Ecological information

#### Toxicity

Information on the product as supplied:  
No data available on product

Components:

Sodium chloride

NOEC - Daphnia magna (water flea) - 1,500 mg/l - 7 d

LC50 - Lepomis macrochirus (bluegill) - 5,840 mg/l - 96 h

LC50 - Daphnia magna (water flea) - 1,661 mg/l - 48 h

Sodium chlorite

LC50 - Cyprinodon variegatus (sheepshead minnow) - 105 mg/l - 96 h

EC50 - Daphnia magna (water flea) - < 1 mg/l - 48 h

#### Persistence and degradability

Information on the product as supplied:  
No data available on product

Components:

Sodium chloride

Not applicable (inorganic)

Sodium chlorite

Not applicable (inorganic)

#### Bioaccumulative potential

No data available.

#### Mobility in soil

No data available.

#### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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### SECTION 13: Disposal considerations

#### Disposal of the product

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

#### Disposal of contaminated packaging

Dispose of as unused product.

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### SECTION 14: Transport information

#### DOT (US)

UN number: 1496

Class: 5.1

Packing group: II

Proper shipping name: Sodium chlorite

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

#### IMDG

UN number: 1496

Class: 5.1

Packing group: II

EMS-No: F-H, S-Q

Proper shipping name: SODIUM CHLORITE

Marine pollutant: yes

#### IATA

UN number: 1496

Class: 5.1

Packing group: II

Proper shipping name: Sodium chlorite

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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

##### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

##### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Reactive

##### Massachusetts Right To Know Components

Sodium chlorite

CAS-No. 7758-19-2

##### New Jersey Right To Know Components

Sodium chloride

CAS-No. 7647-14-5

Sodium chlorite



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CAS-No. 7758-19-2

### Pennsylvania Right To Know Components

Sodium chloride

CAS-No. 7647-14-5

Sodium chlorite

CAS-No. 7758-19-2

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### HMIS Rating

PolyBreak 2	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	3
PERSONAL PROTECTION	

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## SECTION 16: Other information

### 16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Downhole Chemical Solutions be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Downhole Chemical Solutions has been advised of the possibility of such damages.