

# Cleansorb

## SAFETY DATA SHEET ARCASOLVE HC CELLULOSE BREAKER ENZYME

According to Regulation (EU) No 453/2010

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name ARCASOLVE HC CELLULOSE BREAKER ENZYME

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

Identified uses Acidising treatment of oil, gas and water wells.  
Uses advised against No uses advised against are identified.

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

Supplier Cleansorb Ltd  
Unit 1J, Merrow Business Centre,  
Merrow Lane,  
Guildford.  
Surrey.GU4 7WA  
United Kingdom  
Tel +44(0) 1483 300107  
Fax+44(0) 1483 300109  
E Mail contact@cleansorb.com

#### 1.4. Emergency telephone number

Tel +44(0)1483 300107 (Monday - Friday 09.00 - 17.00)

### SECTION 2: HAZARDS IDENTIFICATION

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

Classification (EC 1272/2008)  
Physical and Chemical Hazards Not classified.  
Human health Resp. Sens. 1 - H334  
Environment Not classified.  
Classification (1999/45/EEC) R42.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### 2.2. Label elements

Contains CELLULASE ENZYME  
Label In Accordance With (EC) No. 1272/2008



Signal Word Danger

Hazard Statements  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements  
P285 In case of inadequate ventilation wear respiratory protection.  
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
P501 Dispose of contents/container in accordance with local, regional, national and International Regulations.

Supplementary Precautionary Statements  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

# ARCASOLVE HC CELLULOSE BREAKER ENZYME

P304+341

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

## 2.3. Other hazards

This product does not contain any PBT or vPvB substances.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

CELLULASE ENZYME	1- 10%
CAS-No.: 9012-54-8	EC No.: 232-734-4
Classification (EC 1272/2008) Resp. Sens. 1 - H334	Classification (67/548/EEC) R42.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### Composition Comments

Cellulase enzyme protein in aqueous solution.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General information

General first aid, rest, warmth and fresh air.

#### Inhalation

Remove victim immediately from source of exposure. Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Rinse nose and mouth with water. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.

#### Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. Rinse nose, mouth and throat with water. Drink plenty of water. Consult a physician for specific advice.

#### Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

#### Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

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

#### General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

#### Inhalation.

Upper respiratory irritation. May cause an asthma-like shortness of breath.

#### Ingestion

No specific symptoms noted.

#### Skin contact

Prolonged skin contact may cause redness and irritation.

#### Eye contact

May cause temporary eye irritation.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Extinguishing media

Fire can be extinguished using: Foam, carbon dioxide or dry powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

#### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

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

# ARCASOLVE HC CELLULOSE BREAKER ENZYME

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific hazards

The product is non-combustible. If heated, corrosive and toxic vapours/gases may be formed.

## **5.3. Advice for firefighters**

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.

Protective equipment for fire-fighters

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

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation. For personal protection, see section 8.

### **6.2. Environmental precautions**

Avoid release to the environment. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities. To prevent release, place container with damaged side up.

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

Wear necessary protective equipment. Stop leak if possible without risk. DO NOT touch spilled material! Any spillages of undiluted material should be treated immediately to prevent formation of dust from dried material. Absorb in vermiculite, dry sand or earth and place into containers. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Flush away small spillages with plenty of water.

### **6.4. Reference to other sections**

For personal protection, see section 8. Collect and dispose of spillage as indicated in section 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Avoid inhalation of vapours/spray and contact with skin and eyes. Do not use in confined spaces without adequate ventilation and/or respirator. Provide good ventilation. Care should be taken when handling enzyme preparations to avoid the production of aerosols from liquid or dust from powders or dried liquid spillages.

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

Store in tightly closed original container in a dry, cool and well-ventilated place. Store below 25°C. Protect from freezing and direct sunlight. Do not store near heat sources or expose to high temperatures.

### **7.3. Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

Ingredient Comments

No exposure limits noted for ingredient(s).

### **8.2. Exposure controls**

Protective equipment



Engineering measures

Provide adequate general and local exhaust ventilation. All handling to take place in well-ventilated area.

Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. Use respiratory equipment with combination filter, type A2/P3.

Hand protection

Wear protective gloves. For exposure of 4 to 8 hours use gloves made of: Butyl rubber. Nitrile. Neoprene. Polyvinyl chloride (PVC). or Viton rubber (fluor rubber). Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

# ARCASOLVE HC CELLULOSE BREAKER ENZYME

Eye protection

Goggles/face shield are recommended.

Other Protection

Provide eyewash station. Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes contaminated. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties.

Skin protection

Wear apron or protective clothing in case of contact.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Liquid
Colour	Straw. Yellow. to Brown.
Odour	Slight microbial fermentation odour.
Solubility	Soluble in water.
Initial boiling point and boiling range	
No information available.	
Melting point (°C)	
No information available.	
Relative density	
No information available.	
Vapour pressure	
No information available.	
Evaporation rate	
No information available.	
pH-Value, Conc. Solution	5.6 - 6.0
Viscosity	
No information available.	
Flash point	
Not relevant	
Auto Ignition Temperature (°C)	
Not relevant	
Flammability Limit - Lower(%)	
Not relevant	
Flammability Limit - Upper(%)	
Not relevant	
Partition Coefficient (N-Octanol/Water)	
No information available.	
Oxidising properties	
Does not meet the criteria for oxidising.	

### 9.2. Other information

No information required.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3. Possibility of hazardous reactions

Not known.

Hazardous Polymerisation

Unknown.

### 10.4. Conditions to avoid

Avoid exposure to high temperatures or direct sunlight. Avoid frost.

**10.5. Incompatible materials**

Materials To Avoid

No incompatible groups noted.

**10.6. Hazardous decomposition products**

None under normal conditions.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

Acute toxicity:

Acute Toxicity (Oral LD50)

> 2000 mg/kg Rat

Acute Toxicity (Dermal LD50)

No information available.

Acute Toxicity (Inhalation LC50)

No information available.

Skin Corrosion/Irritation:

Human Skin Model Test

No information available.

Respiratory or skin sensitisation:

There is evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

No information available.

Germ cell mutagenicity:

Genotoxicity - In Vitro

No information available.

Genotoxicity - In Vivo

No information available.

Carcinogenicity:

Carcinogenicity

No information available.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

No information available.

Reproductive Toxicity - Development

No information available.

Specific target organ toxicity - single exposure:

STOT - Single exposure

No information available.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

No information available.

Aspiration hazard:

Based on available data the classification criteria are not met.

Inhalation

May cause sensitisation by inhalation.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin contact

Prolonged contact may cause redness and irritation.

Eye contact

May cause temporary eye irritation.

# ARCASOLVE HC CELLULOSE BREAKER ENZYME

## Health Warnings

May cause respiratory allergy. Inhalation of aerosols or dust containing enzyme may cause sensitisation in susceptible individuals or allergic reactions in sensitized individuals.

## Route of entry

Inhalation. Skin and/or eye contact.

## Target Organs

Respiratory system, lungs

## Medical Symptoms

Vapours may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

## Medical Considerations

Chronic respiratory and obstructive airway diseases.

## Specific effects

Frequent inhalation of vapours, may cause respiratory allergy.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### **12.1. Toxicity**

#### Acute Toxicity - Fish

Not available.

#### Acute Toxicity - Aquatic Invertebrates

Not available.

#### Acute Toxicity - Aquatic Plants

Not available.

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

#### Degradability

The product is biodegradable.

### **12.3. Bioaccumulative potential**

#### Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

#### Partition coefficient

No information available.

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

#### Mobility:

The product is soluble in water.

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

This product does not contain any PBT or vPvB substances.

### **12.6. Other adverse effects**

No information required.

## SECTION 13: DISPOSAL CONSIDERATIONS

### General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

### **13.1. Waste treatment methods**

Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

### General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### Road Transport Notes

Not regulated.

### Rail Transport Notes

Not regulated.

# ARCASOLVE HC CELLULOSE BREAKER ENZYME

Sea Transport Notes Not regulated.

Air Transport Notes Not regulated.

## **14.1. UN number**

No information required.

## **14.2. UN proper shipping name**

No information required.

## **14.3. Transport hazard class(es)**

No information required.

## **14.4. Packing group**

No information required.

## **14.5. Environmental hazards**

Environmentally Hazardous Substance/Marine Pollutant  
No.

## **14.6. Special precautions for user**

No information required.

## **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No information required.

## **SECTION 15: REGULATORY INFORMATION**

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

EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

### **15.2. Chemical Safety Assessment**

No chemical safety assessment has been carried out.

## **SECTION 16: OTHER INFORMATION**

Revision Date 09/10/2013

Revision 2

Supersedes date 08/08/2013

Risk Phrases In Full

R42 May cause sensitisation by inhalation.

Hazard Statements In Full

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

### Disclaimer

The information contained in this safety data sheet is believed to be accurate and is presented in good faith. However, no warranties or representations are made by Cleansorb Limited regarding the accuracy or completeness of the information.