Biosolve® E

Version 5.0 (replaces: Version 4.0)
Revision Date 31.03.2015 Ref. 130000098634

This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Biosolve® E

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

Use of the Substance/Mixture : Detergent, Cleaning agent

1.3. Details of the supplier of the safety data sheet

Company : Antec International Limited
Windham Road
Chilton Industrial Estate
Sudbury / Suffolk - CO10 2XD
United Kingdom

Telephone : +44 (0) 1787 377 305

Telefax : +44 (0) 1787 310 846

E-mail address : sds-support@che.dupont.com

1.4. Emergency telephone number

Emergency telephone number : +(44)-870-8200418

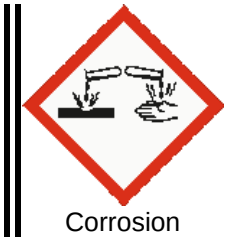
SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin corrosion, Category 1A H314: Causes severe skin burns and eye damage.

Corrosive R35: Causes severe burns.

2.2. Label elements



Corrosion

Danger

H314 Causes severe skin burns and eye damage.

P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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/doctor.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

no data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Registration number	Classification according to Directive 67/548/EEC	Classification according to Regulation (EU) 1272/2008 (CLP)	Concentration (% w/w)
Sodium hydroxide (CAS-No.1310-73-2) (EC-No.215-185-5)			
01-2119457892-27	C;R35	Skin Corr. 1A; H314	>= 5 - <= 10 %
Polyethylene Oxide Mono-C6-12-Alkyl Ether (CAS-No.68439-45-2)			
	Xn;R22 Xi;R38 R41	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 2.5 - < 5 %

The above products are compliant to REACH registration obligations; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.

Inhalation : Move to fresh air. If victim has stopped breathing: Artificial respiration and/or

oxygen may be necessary. Call a physician immediately.

Skin contact : Wash off immediately with plenty of water. Take off contaminated clothing and shoes immediately. Call a physician immediately.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion : Do NOT induce vomiting. Rinse mouth. Call a physician immediately.

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

Symptoms : Ingestion may provoke the following symptoms:, Irritation, Damage, Breathing difficulties

: Skin contact may provoke the following symptoms:, Corrosion, Pain, Burn, Sensitisation, Itching, Redness, Rash

: Eye contact may provoke the following symptoms:, Corrosion, Lachrymation, Redness, Ulceration

: Burn, Abdominal pain, Vomiting, Diarrhoea, Irritation

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

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam, Dry powder, Water spray, Carbon dioxide (CO2)

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : Hazardous decomposition products Carbon dioxide (CO2) Carbon monoxide (see also section 10)

5.3. Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

Further information : The product itself does not burn.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas. Wear personal protective equipment.

6.2. Environmental precautions

Environmental precautions : Do not contaminate surface water. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Chemical binders containing acids. Sweep up and shovel into suitable containers for disposal.

Other information : Dispose of in accordance with local regulations.

6.4. Reference to other sections

For disposal instructions see section 13., For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : For personal protection see section 8. Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in cool place. Keep away from direct sunlight. Keep tightly closed.

Advice on common storage : Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Strong bases

Other data : Perishable if frozen.

7.3. Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

If sub-section is empty then no values are applicable.

Components with workplace control parameters

Type Form of exposure	Control parameters	Update	Basis	Remarks

Sodium hydroxide (CAS-No. 1310-73-2)

STEL	2 mg/m3	2007	EH40 WEL	

8.2. Exposure controls

Engineering measures	:	Ensure adequate ventilation.
Eye protection	:	Tightly fitting safety goggles
Hand protection	:	Rubber gloves
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing.
Respiratory protection	:	Provide adequate ventilation. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Half mask with combination filter A1/P2 (EN 141)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	: liquid
Colour	: clear, light yellow
pH	: 12.0 - 12.6 at 10.0 g/l (as aqueous solution)
Boiling point	: 100 °C
Flash point	: does not flash
Density	: 1.110 - 1.140 g/cm3
Water solubility	: completely soluble

9.2. Other information

no data available

SECTION 10: Stability and reactivity

10.1. Reactivity	:	Stable under recommended storage conditions.
10.2. Chemical stability	:	Stable under normal conditions.
10.3. Possibility of hazardous reactions	:	Stable under normal conditions.

10.4. Conditions to avoid : Protect from frost, heat and sunlight.

10.5. Incompatible materials : Acids
Light metals
Strong oxidizing agents

10.6. Hazardous decomposition products : Carbon dioxide (CO2)
Carbon monoxide
Hydrogen, by reaction with metals

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

Acute toxicity estimate : > 2,000 mg/kg
Method: Calculation method

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  LD50 / Rat : 300 - 2,000 mg/kg

Acute inhalation toxicity

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  LC50 / 4 h Rat : > 8.02 mg/l

Acute dermal toxicity

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  LD50 / Rabbit : > 2,000 mg/kg

Skin irritation

- Sodium hydroxide
  multiple species
  Classification: Corrosive
  Result: Causes severe burns.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  Rabbit
  Classification: Irritating to skin.
  Result: Moderate skin irritation

Eye irritation

- Sodium hydroxide
  Rabbit
  Classification: Corrosive
  Result: Corrosive

- Polyethylene Oxide Mono-C6-12-Alkyl Ether

Rabbit
Classification: Risk of serious damage to eyes.
Result: Severe eye irritation

Sensitisation

- Sodium hydroxide
  human
  Classification: Does not cause skin sensitisation.
  Result: Does not cause skin sensitisation.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  Guinea pig
  Classification: Not a skin sensitizer.
  Result: Does not cause skin sensitisation.

Repeated dose toxicity

- Sodium hydroxide
  Inhalation Rat
  No toxicologically significant effects were found.

  Oral Rat
  No toxicologically significant effects were found.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  Oral Rat
  No adverse effect has been observed in chronic toxicity tests.

  Dermal Rat
  No adverse effect has been observed in chronic toxicity tests.

Mutagenicity assessment

- Sodium hydroxide
  Animal testing did not show any mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  Animal testing did not show any mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals. Did not cause genetic damage in cultured bacterial cells.

Carcinogenicity assessment

- Sodium hydroxide
  Not classifiable as a human carcinogen. Overall weight of evidence indicates that the substance is not carcinogenic.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  Not classifiable as a human carcinogen. Overall weight of evidence indicates that the substance is not carcinogenic.

Toxicity to reproduction assessment

- Sodium hydroxide
  No toxicity to reproduction No effects on or via lactation Evidence suggests the substance is not a reproductive toxin in animals.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  No toxicity to reproduction Animal testing showed no reproductive toxicity.

Assessment teratogenicity

- Sodium hydroxide
  Evidence suggests the substance is not a developmental toxin in animals.

- Polyethylene Oxide Mono-C6-12-Alkyl Ether
  Animal testing showed no developmental toxicity.

Human experience

Excessive exposures may affect human health, as follows:

Inhalation
Upper respiratory tract: Damage, Severe shortness of breath, Irritation

Skin contact
Skin: Corrosion

Eye contact
Eyes: Corrosion, Lachrymation, Redness, Ulceration, Blindness

Ingestion
Mucous membranes: Burns, Abdominal pain, Vomiting, Diarrhoea, Irritation

Further information

No data is available on the product itself.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish

- Sodium hydroxide
  LC50 / 96 h / Poecilia reticulata (guppy): 56 mg/l

Toxicity to aquatic invertebrates

- Sodium hydroxide
  LC50 / 48 h / Ceriodaphnia dubia (water flea): 40 mg/l

12.2. Persistence and degradability

no data available

12.3. Bioaccumulative potential

no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

Additional ecological information

No data is available on the product itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	Dispose of as special waste in compliance with local and national regulations. The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging	:	If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not allow rinsate from cleaning of equipment or disposed material to enter surface or groundwater.

SECTION 14: Transport information

ADR

14.1. UN number:	1824
14.2. UN proper shipping name:	SODIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
14.5. Environmental hazards:	For further information see Section 12.
14.6. Special precautions for user:	
Tunnel restriction code:	(E)

IATA_C

14.1. UN number:	1824
14.2. UN proper shipping name:	Sodium hydroxide solution
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
14.5. Environmental hazards :	For further information see Section 12.
14.6. Special precautions for user:	

no data available

IMDG

14.1. UN number:	1824

14.2.	UN proper shipping name:	SODIUM HYDROXIDE SOLUTION
14.3.	Transport hazard class(es):	8
14.4.	Packing group:	II
14.5.	Environmental hazards :	For further information see Section 12.
14.6.	Special precautions for user: no data available	

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

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

no data available

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Text of R-phrases mentioned in Section 3

R22	Harmful if swallowed.
R35	Causes severe burns.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

Full text of H-Statements referred to under section 3.

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.

Other information	professional use

Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-No.	Chemical Abstracts Service number
CLP	Classification, Labelling and Packaging
EbC50	Concentration at which 50% reduction of biomass is observed
EC50	Median effective concentration
EN	European Norm
EPA	Environmental Protection Agency
ErC50	Concentration at which a 50% inhibition of growth rate is observed
EyC50	Concentration at which 50 % inhibition of yield is observed
IATA_C	International Air Transport Association (Cargo)
IBC	International Bulk Chemical Code
ICAO	International Civil Aviation Organization

ISO	International Standard Organization
IMDG	International Maritime Dangerous Goods
LC50	Median Lethal Concentration
LD50	Median Lethal Dose
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No observed adverse effect level
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
OPPTS	Office of Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative and Toxic
STEL	Short term exposure limit
TWA	Time Weighted Average (TWA):
vPvB	very Persistent and very Bioaccumulative

Further information

No ES Annex has been created as to the best of our knowledge and information available at the date of its publication no Exposure Scenario information is currently available for the substances within the mixture. Please see Sections 1 to 16 of the Safety Data Sheet.

Significant change from previous version is denoted with a double bar.

The information provided in this 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 above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.