



SAFETY DATA SHEET BLEACOL

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

1.1. Product identifier

Product name BLEACOL
 Product number 13046
 Synonyms; trade names BLEACOL LOW BROMATE

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

Identified uses Disinfectant. Chemical Intermediate

1.3. Details of the supplier of the safety data sheet

Supplier

Univar
 Aquarius House
 6 Mid Point Business Park
 Bradford
 BD3 7AY
 +44 1274 267300
 sds@univar.com
 +44 1274 267306

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 13046

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Met. Corr. 1 - H290
 Health hazards Skin Corr. 1B - H314 Eye Dam. 1 - H318
 Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) C; R34. N; R50/53. R31

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P234 Keep only in original container. P273 Avoid release to the environment. 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. 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/ doctor. P405 Store locked up. P406 Store in corrosive resistant/... container with a resistant inner liner.
Supplemental label information	EUH031 Contact with acids liberates toxic gas.
Contains	SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE		10-30%
CAS number: 7681-52-9	EC number: 231-668-3	REACH registration number: 01-2119488154-34-XXXX
M factor (Acute) = 10	M factor (Chronic) = 1	
Classification Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC or 1999/45/EC) C;R34 R31 N;R50	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention.

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Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. Generates toxic gas in contact with acid. Chlorine.

Ingestion Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

Skin contact Chemical burns.

Eye contact Causes burns. Risk of serious damage to eyes. May cause permanent damage if eye is not immediately irrigated.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire. Extinguish with the following media: Water spray.

5.2. Special hazards arising from the substance or mixture

Specific hazards Dry product is combustible Toxic to aquatic life with long lasting effects.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Chlorine. Oxygen.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Contain and collect extinguishing water.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists. Provide adequate ventilation. Contact with acids liberates toxic gas. Chlorine.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Protect from freezing and direct sunlight. Store in tightly-closed, original container in a well-ventilated place. Store away from the following materials: Acids. Flammable/combustible materials. Ammonia. May be corrosive to metals.

Storage class Corrosive storage.

7.3. Specific end use(s)

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

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE (CAS: 7681-52-9)

Ingredient comments	No exposure limits known for ingredient(s).
DNEL	Industry - Inhalation; Long term : 1.55 mg/m ³ Industry - Inhalation; Short term : 3.1 mg/m ³ Consumer - Inhalation; Long term : 1.55 mg/m ³ Consumer - Inhalation; Short term : 3.1 mg/m ³
PNEC	- Sediment (Freshwater); 0.00021 mg/l - Sediment (Marinewater); 0.000042 mg/l - Intermittent release; 0.00026 mg/l - STP; 0.03 mg/l

SODIUM HEXA META PHOSPHATE (CAS: 68915-31-1)

Ingredient comments	No exposure limits known for ingredient(s).
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8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. EN 166

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Butyl rubber. Polyvinyl chloride (PVC). EN 374

Other skin and body protection

Wear rubber apron. Wear rubber footwear.

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Hygiene measures	Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Eating, smoking and water fountains prohibited in immediate work area.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Various colours.
Odour	Chlorine.
Odour threshold	No information available.
pH	pH (concentrated solution): >11
Melting point	-17°C
Initial boiling point and range	>100°C
Flash point	No information available.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.20 - 1.27
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	Not available.

9.2. Other information

Other information	Not determined.
Refractive index	No information available.

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Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Generates toxic gas in contact with acid.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Titer reduction of about 0.2 to 0.25 ° chlorometric per day at 17 ° C The stability of the solution decreases under the action of heat, light and in the presence of impurities (traces of iron, nickel, copper, cobalt, aluminum, manganese)

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Generates toxic gas in contact with acid.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Strong acids. Amines. contact with metals may result in decomposition with the formation of Oxygen

10.6. Hazardous decomposition products

Hazardous decomposition products Oxygen. hypochlorous acid Chlorine.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.

Skin corrosion/irritation

Animal data No information available.

Serious eye damage/irritation

Serious eye damage/irritation No information available.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

BLEACOL**Carcinogenicity****Carcinogenicity** No information available.**Reproductive toxicity****Reproductive toxicity - fertility** 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****Aspiration hazard** No information available.**Inhalation** Gas or vapour in high concentrations may irritate the respiratory system.**Ingestion** May cause chemical burns in mouth, oesophagus and stomach.**Skin contact** Causes burns.**Eye contact** Causes burns. Causes serious eye damage.**SODIUM HYPOCHLORITE SOLUTION, ... % Cl ACTIVE****Acute toxicity - oral****Acute toxicity oral (LD₅₀ mg/kg)** 1,100.0**Species** Rat**Acute toxicity - dermal****Acute toxicity dermal (LD₅₀ mg/kg)** 2,000.0**Species** Rat**Acute toxicity - inhalation****Acute toxicity inhalation (LC₅₀ vapours mg/l)** 10,500.0**Species** Rat**ATE inhalation (vapours mg/l)** 10,500.0**Skin corrosion/irritation****Skin corrosion/irritation** Corrosive to skin.**Serious eye damage/irritation****Serious eye damage/irritation** Corrosive**Skin sensitisation****Skin sensitisation** Not sensitising.**Germ cell mutagenicity****Genotoxicity - in vitro** This substance has no evidence of mutagenic properties.

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Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Irritating to respiratory system.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard None.

Inhalation May cause damage to mucous membranes in nose, throat, lungs and bronchial system. May cause respiratory system irritation.

Ingestion May cause chemical burns in mouth, oesophagus and stomach.

Skin contact May cause serious chemical burns to the skin.

Eye contact Causes burns. Causes serious eye damage.

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

Ecotoxicity Very toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity Toxic to aquatic life with long lasting effects.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

Toxicity Very toxic to aquatic organisms.

Acute aquatic toxicity

LE(C)₅₀ 0.01 < L(E)C₅₀ ≤ 0.1

M factor (Acute) 10

Acute toxicity - fish LC₅₀, 96 hours: 0.06 mg/l, Freshwater fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.141 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 0.04 mg/l, Scenedesmus subspicatus

Chronic aquatic toxicity

M factor (Chronic) 1

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Chronic toxicity - fish early life stage NOEC, 28 days: 0.04 mg/l, Freshwater fish

12.2. Persistence and degradability

Persistence and degradability Not applicable. Substance is inorganic.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

Persistence and degradability Not applicable. Substance is inorganic.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient Not available.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

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

Partition coefficient : -3.42

12.4. Mobility in soil

Mobility The product is soluble in water.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

Results of PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating and toxic (PBT) or very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Other adverse effects None known.

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty. Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

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14.1. UN number

UN No. (ADR/RID)	1791
UN No. (IMDG)	1791
UN No. (ICAO)	1791
UN No. (ADN)	1791

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	HYPOCHLORITE SOLUTION
Proper shipping name (IMDG)	HYPOCHLORITE SOLUTION
Proper shipping name (ICAO)	HYPOCHLORITE SOLUTION
Proper shipping name (ADN)	HYPOCHLORITE SOLUTION

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C9
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80

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Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

SECTION 15: Regulatory information

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

EU legislation

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) (as amended).

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 (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

This product may impact SEVESO storage regulations.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

04/04/2017

Revision

05

Supersedes date

16/02/2016

SDS number

13046

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Version number	1.001
SDS status	Approved.
Signature	Lisa Bland
Risk phrases in full	R31 Contact with acids liberates toxic gas. R34 Causes burns. R50 Very toxic to aquatic organisms. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Hazard statements in full	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.