



C

Safety Data Sheet dated 17/10/2014, version 2
In compliance with Regulation (EC) 453/2010

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product identifier
Mixture identification:
Trade name: BRIGHT HARD
Product type: caustic cleaner
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
Washing and cleaning products (including solvent based products)
Uses advised against:
Not available
- 1.3. Details of the supplier of the safety data sheet
Supplier:
AirChem Consumables. Sharjah Airport International Zone (SAIF Zone, A2-099), Sharjah, UAE. P.O. BOX 8994.
TEL: +971 6 552 8946 FAX: +971 6 552 8947, Email: airacc@acc.ae
Competent person responsible for the safety data sheet:
airacc@acc.ae
- 1.4. Emergency telephone number
AirChem Consumables, TEL: +971 6 552 8946 FAX: +971 6 552 8947, Email: airacc@acc.ae

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:
Properties / Symbols:
C Corrosive
R Phrases:
R35 Causes severe burns.

Adverse physicochemical, human health and environmental effects:
No other hazards

- 2.2. Label elements
Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:






C

- Symbols:
C Corrosive
R Phrases:
R35 Causes severe burns.
S Phrases:
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Contents:
Potassium hydroxide
Sodium hydroxide

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

- 2.3. Other hazards
vPvB Substances: None - PBT Substances: None
Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

- 3.1. Substances
Not applicable
- 3.2. Mixtures
Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and related classification:
1-10% Potassium hydroxide
REACH N°: 01-2119487136-33, Index number: 019-002-00-8, CAS: 1310-58-3, EC: 215-181-3
Xn,C; R22-35
 2.16/1 Met. Corr. 1 H290
 3.2/1A Skin Corr. 1A H314
 3.1/4/Oral Acute Tox. 4 H302

1-10% Sodium hydroxide
REACH N°: 01-2119457892-27-XXXX, Index number: 011-002-00-6, CAS: 1310-73-2, EC: 215-185-5
C; R35


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 2.16/1 Met. Corr. 1 H290

 3.2/1A Skin Corr. 1A H314

1-5% Tetrasodium (1-hydroxyethylidene)bisphosphonate
CAS: 3794-83-0, EC: 223-267-7
Xn,Xi; R36-22

 3.1/4/Oral Acute Tox. 4 H302

 3.3/2 Eye Irrit. 2 H319

Declaration of ingredients according to Detergent Regulation 648/2004:
EDTA and salts, phosphonates

< 5 %

For the complete text of the hazard and risk phrases refer to paragraph 16

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

Give nothing to eat or drink.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

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SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
- 7.3. Specific end use(s)
For more information see Technical data bulletin
None in particular

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
Contained substances
Potassium hydroxide - CAS: 1310-58-3
ACGIH - STE mg/m³: 2 - STE ppm: 0.87 - Behaviour: Binding - Notes: Short: C. Irritation of the skin, respiratory and eye irritation.
OEL - LTE mg/m³: 2 - STE mg/m³: 2 - STE ppm: 0.87 - Behaviour: Binding
Sodium hydroxide - CAS: 1310-73-2
ACGIH - STE mg/m³: C 2 - STE ppm: C 1.22 - Behaviour: Binding - Notes: After swallowing: burns to the mouth and esophagus, perforation of the gastrointestinal tract. Tissue necrosis. - Critical effects: C Irritation of the skin, respiratory and eye irritation.
- DNEL Exposure Limit Values
Potassium hydroxide - CAS: 1310-58-3
Worker Professional: 1 mg/m³ - Consumer: 1 - U.M.: mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
Sodium hydroxide - CAS: 1310-73-2
Worker Professional: 1 mg/m³ - Consumer: 1 - U.M.: mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
- PNEC Exposure Limit Values
Not applicable
- 8.2. Exposure controls
Eye protection:
Use close fitting safety goggles, don't use eye lens.
Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.
Respiratory protection:
Not needed for normal use.
Thermal Hazards:
None
Environmental exposure controls:
None

SECTION 9: Physical and chemical properties

- 9.1. Information on basic physical and chemical properties
- | | |
|---|-------------------------|
| Appearance and colour: | Clear liquid |
| Odour: | typical |
| Odour threshold: | n.av. mg/m ³ |
| pH: | 13 |
| Melting point / freezing point: | < 0 °C |
| Initial boiling point and boiling range: | initial 100 °C |
| Solid/gas flammability: | na |
| Upper/lower flammability or explosive limits: | na % v/v |
| Vapour density (air=1): | > 1 |
| Flash point: | none °C |
| Evaporation rate: | na |
| Vapour pressure: | 3.2 kPa |
| Relative density: | 1.2 g/ml |
| Solubility in water: | complete |
| Solubility in oil: | n.av. |
| Partition coefficient (n-octanol/water): | n.av. |
| Auto-ignition temperature: | none °C |
| Decomposition temperature: | n.av. °C |
| Viscosity: | n.av. mPa.s |

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Explosive properties:	not Explosive
Oxidizing properties:	none
9.2. Other information	
Miscibility:	complete in water
Fat Solubility:	n.av.
Conductivity:	n.av.
Substance Groups relevant properties:	n.av.
SECTION 10: Stability and reactivity	
10.1. Reactivity	Stable under normal conditions
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	It may generate flammable gases on contact with halogenated organic substances, and elementary metals.
10.4. Conditions to avoid	Stable under normal conditions.
10.5. Incompatible materials	None in particular.
10.6. Hazardous decomposition products	None.
SECTION 11: Toxicological information	
11.1. Information on toxicological effects	Toxicological information of the main substances found in the mixture:
	Potassium hydroxide - CAS: 1310-58-3
	a) acute toxicity:
	LD50 Oral Rat = 333 mg/kg
	Sodium hydroxide - CAS: 1310-73-2
	a) acute toxicity:
	LD50 Oral Rat = 2000 mg/kg
	LC50 Inhalation Mouse = 4800 mg/l 1 hour
	LD50 Skin Rabbit = 1350 mg/kg
	LCLo Oral Rabbit = 500 mg/kg
	b) skin corrosion/irritation:
	Skin Corrosive Skin Positive OECD 435 In vitro study
	Eye Corrosive Skin Rabbit Positive Irreversible effects
	If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.AV.:
	a) acute toxicity;
	b) skin corrosion/irritation;
	c) serious eye damage/irritation;
	d) respiratory or skin sensitisation;
	e) germ cell mutagenicity;
	f) carcinogenicity;
	g) reproductive toxicity;
	h) STOT-single exposure;
	i) STOT-repeated exposure;
	j) aspiration hazard.
SECTION 12: Ecological information	
12.1. Toxicity	Based on the information available it is not expected that this product may cause any adverse environmental effect when use instructions and disposal recommendations are followed.
	Adopt good working practices, so that the product is not released into the environment.
	List of substances hazardous to the environment and eco-toxicological information available:
	Potassium hydroxide - CAS: 1310-58-3
	a) Aquatic acute toxicity:
	LC50 Fish = 80 mg/l 96 Gambusia affinis
	LC50 Bacteria = 80 mg/l 24 Mosquito
	Sodium hydroxide - CAS: 1310-73-2
	a) Aquatic acute toxicity:
	LC50 Fish > 35 mg/l 96
	LC50 Fish -1 189 mg/l 96
	LC50 Fish = 125 mg/l 96 Gambusia affinis
	EC50 Daphnia > 30 mg/l 48
	EC50 Daphnia -1 1000 mg/l 48
	EC50 Daphnia = 40.4 mg/l 48 Ceriodaphnia dubia
12.2. Persistence and degradability	Potassium hydroxide - CAS: 1310-58-3
	Biodegradability: Non-readily biodegradable - Test: Not applicable - Duration: Not applicable - %: Not applicable - Notes: Not applicable
	Regulation (EC) No. 648/2004 on Detergents and amendments:
	Not applicable
12.3. Bioaccumulative potential	

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Sodium hydroxide - CAS: 1310-73-2

Bioaccumulation: Not bioaccumulative - Test: Not applicable Not applicable - Duration: Not applicable - Notes: Not applicable

12.4. Mobility in soil

Sodium hydroxide - CAS: 1310-73-2

Mobility in soil: Mobile - Test: Not applicable Not applicable - Duration: Not applicable - Notes: Not applicable

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product and its residue:

Do not dispose in the canals of wastewater, waterways and soil.

The codes indicating the type of waste are considered based on the recommendations and scheduled use of this product.

Different codes may be assigned based on the end user's use and the characteristics of the disposal.

Waste code CER/EWC (2000/532/CE), attributable to the product as:

07 06 01* aqueous solution of washing and mother liquors

H8 corrosive

Any remaining product should be disposed of with the material.

Containers/contaminated packaging

Containers, even completely empty, must not be disposed in the environment. The packings which can not be cleaned should be disposed of as the material.

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information



14.1. UN number

ADR-UN Number: 1719

IATA-UN Number: 1719

IMDG-UN Number: 1719

14.2. UN proper shipping name

ADR-Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide, Potassium hydroxide)

IATA-Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide, Potassium hydroxide)

IMDG-Shipping Name: CAUSTIC ALKALI LIQUID, N.O.S. (Sodium hydroxide, Potassium hydroxide)

14.3. Transport hazard class(es)

ADR-Class: 8

ADR-Label: 8

ADR - Hazard identification number: 80

IATA-Class: 8

IATA-Label: 8

IMDG-Class: 8

14.4. Packing group

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

ADR-Subsidiary risks: -

ADR-S.P.: 274

ADR-Tunnel Restriction Code: (E)

IATA-Passenger Aircraft: 851

IATA-Subsidiary risks: -

IATA-Cargo Aircraft: 855

IATA-S.P.: A3 A803

IATA-ERG: 8L

IMDG-EmS: F-A , S-B

IMDG-Subsidiary risks: -

IMDG-Storage category: Category A

IMDG-Storage notes: "Separated from" acids. "Away from" ammonium salts.

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

nd

SECTION 15: Regulatory information

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

Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)

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Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Dir. 2006/8/EC
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 453/2010 (Annex I)
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Regulation (EC) nr 648/2004 and CE N. 907/2006 (Detergents).
Directive 2003/105/EC ('Activities linked to risks of serious accidents') and subsequent amendments.
Regulation (EC) n° 648/2004 (detergents).

1999/13/EC (VOC directive)

Volatile Organic compounds - VOCs = 0.00 %

Volatile Organic compounds - VOCs = 0.00 g/l

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 0.00

15.2. Chemical safety assessment

Not available

SECTION 16: Other information

Full text of phrases referred to in Section 3:

R22 Harmful if swallowed.

R35 Causes severe burns.

R36 Irritating to eyes.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Paragraphs modified from the previous revision:

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

SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 13: Disposal considerations

SECTION 14: Transport information

SECTION 15: Regulatory information

This document was prepared by a competent person who has received appropriate training.

This MSDS cancels and replaces any preceding release.

Where applicable, refer to the following regulatory provisions :

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments;

Regulation (EC) n°1272/2008; Regulation (EC) N. 790/2009 (annex VI), Regulation (EC) n. 1907/2006 (REACH).

Commission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments; Commission Directive n. 2006/8/CE.

Regulation (EC) nr 648/2004 and CE N. 907/2006 (Detergents).

Directive 2003/105/EC ('Activities linked to risks of serious accidents') and subsequent amendments.

Directive 2013/10/EU (aerosols) amending Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) n° 1272/2008 on classification, labelling and packaging of substances and mixtures and subsequent amendments.

Regulation (EC) No 1223/2009 on cosmetic products and subsequent amendments.

Regulation (EU) No 126/2013 amending Annex XVII to Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and subsequent amendments. Regulation (EC) N. 304/2003 and subsequent amendments.

Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products and subsequent amendments.

Directives 91/156/CEE, 91/689/CEE, 94/62/CE (Disposal of waste) and subsequent amendments.

The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), current edition.

regulations IATA/ICAO = Dangerous Goods Regulations by air, current edition.

RID = Regulations concerning the International Carriage of Dangerous Goods by Rail, current edition.

IMDG Code = International Maritime Dangerous Goods Code produced by the International Maritime Organization (IMO), current edition.

Directive 91/271/EEC and 91/676/CEE (protection of waters) and subsequent amendments.

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Main bibliographic sources:

ESIS: European chemical Substances Information System and Environmental hazard classification.
Occupational exposure limit values (Commission Directives 2000/39/EC and 2006/15/CE)
ACGIH - TLV's for 2010
NIOSH - Registry of toxic effects of chemical substances (1983)
Material Safety Data Sheets of chemicals, REACH database
Material Safety Data Sheet and Technical Data of raw material as by Supplier
The ISS National Inventory of Chemical Substances (INSC)

Abbreviations and acronyms:

TLV-TWA = Threshold Limit Value- time-weighted average, 8-hour workday, 40-hour workweek; TLV-STEL-15 min = Threshold Limit Values - Short Term Exposure Limit; TLV-C = Ceiling exposure limit; Notes: IBE= Biological Exposure Indices; SEN= sensitizer; Skin= Can be absorbed through the skin. Carcinogenicity categories: A1 / A2 = confirmed / suspected human carcinogen; A3 = Animal carcinogen; A4 / A5 = Not Classifiable/not suspected as a human carcinogen. ACGIH = American Conference on Governmental Industrial Hygienists. OEL =Occupational Exposure Limit. VLPE = Occupational Exposure Limit Values. LTE =long term exposure, STE=short term exposure.

n.av.= Not Available, n.a. = not applicable; LD50=lethal dose (solids and liquids), LC50=lethal concentration (gases) that will kill 50% of the test animals; ADR= European Agreement concerning the International Carriage of Dangerous Goods by Road.

Regulations IATA/ICAO = Dangerous Goods Regulations by air, current edition.

RID = Regulations concerning the International Carriage of Dangerous Goods by Rail, current edition. IMDG Code = International Maritime Dangerous Goods Code produced by the International Maritime Organization (IMO), current edition.

PBT = Persistent, Bioaccumulative and Toxic substances. ; vPvB = very Persistent and very Bioaccumulative substances; CMR = Carcinogenic, mutagenic or reproduction toxic substances.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.