Safety Data Sheet
BRIGHT


C

Safety Data Sheet dated 4/12/2014, version 1
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

Product type: Caustic chlorinated 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.
S28.1 After conctact with skin, wash immediatly with plenty of water and soap
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).
S50.1 Do not mix with ACIDS

Contents:

Potassium hydroxide 15%

Special Provisions:

It does NOT contain phosphorus compounds (Law 7/86)

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:

10% - 20% Potassium hydroxide
REACH N°: 01-2119487136-33-XXXX, 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 metasilicate
REACH N°: 01-2119449811-37-XXXX, Index number: 014-010-00-8, CAS: 10213-79-3, EC: 229-912-9
Xi,C; R34-37
 3.2/1B Skin Corr. 1B H314
 3.8/3 STOT SE 3 H335
 2.16/1 Met. Corr. 1 H290

1% - 5% Sodium hypochlorite
REACH N°: 01-2119488154-34-XXXX, Index number: 017-011-00-1, CAS: 7681-52-9, EC: 231-668-3
Xi,C,N; R37-31-34-50
 2.16/1 Met. Corr. 1 H290
 3.2/1B Skin Corr. 1B H314
 3.8/3 STOT SE 3 H335
 4.1/A1 Aquatic Acute 1 H400

Declaration of ingredients according to Detergent Regulation 648/2004:

phosphonates	5 - 15 %
chlorine-based bleaching agents	< 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.
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 opthalmologist 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

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.
Contamined 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:
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)
For more information see Technical date 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(15min): C 2 - STE ppm: C 0.87 - Behaviour: Binding - Critical effects: C Irritation of the skin , respiratory and eye irritation .

OEL - LTE mg/m3(8h): 2 - STE mg/m3(15min): 2 - STE ppm: 0.87 - Behaviour: Binding

Sodium metasilicate - CAS: 10213-79-3

OEL - LTE mg/m3: 10 - Behaviour: Binding - Notes: Respirable fraction

OEL - LTE mg/m3: 3 - Behaviour: Binding - Notes: Inhalable fraction

OEL - STE mg/m3: 2 - Behaviour: Indicative - Notes: Analogy with NaOH

Sodium hypochlorite - CAS: 7681-52-9

ACGIH - LTE mg/m3(8h): 1.5 - LTE ppm: 0.5 - Behaviour: Binding - Notes: as chlor

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 metasilicate - CAS: 10213-79-3

Worker Professional: 6.22 mg/m3 - Consumer: 1.55 - U.M.: mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 1.49 mg/kg - Consumer: 0.74 - U.M.: mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 0.74 - U.M.: mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Sodium hypochlorite - CAS: 7681-52-9

Worker Professional: 3.1 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Professional: 3.1 mg/m3 - Consumer: 3.1 - U.M.: mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 1.55 mg/m3 - Consumer: 1.55 - U.M.: mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Sodium metasilicate - CAS: 10213-79-3

Target: Fresh Water - Value: 7.5 mg/l

Target: Marine water - Value: 1 mg/l

Target: Occasional issue - Value: 7.5 mg/l

Target: Sewerage treatment plants - Value: 1000 mg/l

Sodium hypochlorite - CAS: 7681-52-9

Target: Fresh Water - Value: 0.21 µg/l

Target: Marine water - Value: 0.042 µg/l

Target: Occasional issue - Value: 0.26 µg/l

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: slightly yellow liquid

Odour:	chlorine
Odour threshold:	n.av. mg/m3
pH:	>13
Melting point / freezing point:	initial 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:	3.5 kPa
Relative density:	1.24 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:	> 35 °C
Viscosity:	n.av. mPa.s
Explosive properties:	none
Oxidizing properties:	n.av.

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 metasilicate - CAS: 10213-79-3

a) acute toxicity:

LD50 Oral Rat > 1152 mg/kg
LD50 Oral Rat -1 1349 mg/kg
LC50 Inhalation Rat > 2.06 g/m3 4 hours
LD50 Skin Rat > 5000 mg/kg bw

b) skin corrosion/irritation:

Skin Corrosive Skin Rat Positive OECD 404

c) serious eye damage/irritation:

Eye Irritant EYES Rabbit Positive OECD 405

Sodium hypochlorite - CAS: 7681-52-9

a) acute toxicity:

LD50 Oral Rat > 1100 mg/kg male
LD50 Skin Rabbit > 10 g/kg

LC50 Inhalation Rat > 10.5 mg/l 1 hour female

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 metasilicate - CAS: 10213-79-3
a) Aquatic acute toxicity:
LC50 Fish = 210 mg/l 96 Brachydanio rerio
LC50 Fish = 2320 mg/l 96 Gambusia affinis
EC50 Daphnia = 1700 mg/l 48 Daphnia magna
EC50 Algae = 207 mg/l 72 Scenedesmus subspicatus

Sodium hypochlorite - CAS: 7681-52-9
a) Aquatic acute toxicity:
LC50 Fish > 0.01 mg/l 96
EC50 Daphnia = 0.141 mg/l 24 Daphnia magna
LC50 Algae = 0.24 mg/l 24 Phaeodactylum tricornutum
LC50 Algae > 0.1 mg/l 96 Myriophyllum spicatum
EC50 Daphnia > 0.01 mg/l 48 Daphnia magna

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

Sodium metasilicate - CAS: 10213-79-3
Bioaccumulation: Not bioaccumulative - Test: Not applicable Not applicable - Duration: Not applicable - Notes: Not applicable

12.4. Mobility in soil

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 bused 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 packigings 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:	3266
IATA-UN Number:	3266
IMDG-UN Number:	3266

14.2. UN proper shipping name

ADR-Shipping Name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide, Sodium metasilicate)
IATA-Shipping Name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide, Sodium metasilicate)
IMDG-Shipping Name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide, Sodium metasilicate)

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-Enviromental 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 B
IMDG-Storage notes:	Clear of living quarters. "Separated from" acids.

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)
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.
R31 Contact with acids liberates toxic gas.
R34 Causes burns.
R35 Causes severe burns.
R37 Irritating to respiratory system.
R50 Very toxic to aquatic organisms.

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

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).
Commmission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments; Commmission 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.

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-weighed 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 Classificable/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.