SUDBAK BRM

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9
Issue date: 10/2/2024 Revision date: 10/2/2027 Version: 1.3

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

1.1. GHS product identifier

Product form	:	Substance
Trade name	:	SUDBAK BRM
Chemical name	:	Sodium hypochlorite
Substance type	:	Mono-constituent
Type of product	:	Bases
EC-No.	:	231-668-3
EC Index-No.	:	017-011-00-1
CAS-No.	:	7681-52-9
UN-No. (ADR)	:	1791
Product code	:	SUDBAK BRM
Product group	:	Trade product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions	:	Biocidal products (e.g. Disinfectants, pest control)

1.4. Supplier's details

ImproChem(Pty) Ltd T/A AECI Water
1 Wharhirst Road
Umbogintwini – Kwa Zulu Natal
South Africa
T +27(31) 949 8200

1.5. Emergency phone number

Emergency number	:	0800 SPILLS or 0800 774557

SECTION 2: Hazard identification

2.1. GHS classification of the substance/mixture and any national or regional information

Classification according to the United Nations GHS

Corrosive to metals, Category 1	H290
Acute toxicity (oral) Not classified	
Acute toxicity (dermal) Not classified	
Skin corrosion/irritation, Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects	:	May be corrosive to metals,Causes severe skin burns and eye damage,Causes serious eye damage,Very toxic to aquatic life with long lasting effects.

2.2. GHS label elements, including precautionary statements

Labelling according to the United Nations GHS

No labelling applicable

2.3. Other hazards which do not result in classification or are not covered by the GHS

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Mono-constituent
Name : SUDBAK BRM
CAS-No. : 7681-52-9
EC-No. : 231-668-3
EC Index-No. : 017-011-00-1
Chemical name : Sodium hypochlorite
Product identifiers: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
SODIUM HYPOCHLORITE	CAS-No.: 7681-52-9	12.5	Met. Corr. 1, H290 Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of necessary first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration as needed. Get medical advice/attention.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms/effect, acute and delayed

Symptoms/effects after inhalation : Irritation of the respiratory tract.
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible materials : Metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Materials for protective clothing : Full conti-suit/overall (Jacket and pants) - Acid resistant and flame retardant with reflective stripes - SANS 434, EN 471, EN 469, EN 533
Hand protection : Shoulder-length gloves - EN 388, EN 374, EN 374-3, PVC C400
Eye protection : Spoggles (not safety glasses) - EN166, UVEX, Pyramex Capstone . Face shield. Safety glasses
Skin and body protection : Full conti-suit/overall (Jacket and pants) - Acid resistant and flame retardant with reflective stripes - SANS 434, EN 471, EN 469, EN 533. Chemical resistant apron
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No data available
Molecular mass	:	74.442 g/mol
Colour	:	Clear yellowish. Clear yellowish
Odour	:	chlorine-like. chlorine-like
Odour threshold	:	No data available
pH	:	> 11
pH solution	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	104 °C
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability	:	Non flammable.
Vapour pressure	:	2500 Pa
Vapour pressure at 50°C	:	No data available
Relative vapour density at 20°C	:	0.92
Relative density	:	No data available
Relative density of saturated gas/air mixture	:	No data available
Density	:	1.12 – 1.32
Relative gas density	:	No data available
Solubility	:	Water: 1000000 mg/l
Partition coefficient n-octanol/water (Log Pow)	:	-3.42
Partition coefficient n-octanol/water (Log Kow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Physical state	:	Liquid
Appearance	:	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical Stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Contact with acids liberates toxic gas.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

metals. Acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified

SUDBAK BRM (7681-52-9)	
LD50 oral	8910 mg/kg bodyweight
LD50 dermal	> 20000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 10500 mg/m³

SODIUM HYPOCHLORITE (7681-52-9)	
LD50 oral	8910 mg/kg bodyweight
LD50 dermal	> 20000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 10500 mg/m³

Skin corrosion/irritation : Causes severe skin burns.
pH: > 11
Serious eye damage/irritation : Causes serious eye damage.
pH: > 11
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Very toxic to aquatic life with long lasting effects.

SUDBAK BRM (7681-52-9)	
LC50 - Fish [1]	2.1 mg/l
LC50 - Other aquatic organisms [1]	1.57 mg/kg
EC50 - Other aquatic organisms [1]	0.141 mg/l
EC50 - Other aquatic organisms [2]	IC50 algea (72 h) mg/l

SODIUM HYPOCHLORITE (7681-52-9)	
LC50 - Fish [1]	2.1 mg/l
LC50 - Other aquatic organisms [1]	1.57 mg/kg
EC50 - Other aquatic organisms [1]	0.141 mg/l
EC50 - Other aquatic organisms [2]	IC50 algea (72 h) mg/l

12.2. Persistence and degradability

SUDBAK BRM (7681-52-9)	
Persistence and degradability	No additional information available

12.3. Bioaccumulative potential

SUDBAK BRM (7681-52-9)	
Partition coefficient n-octanol/water (Log Kow)	-3.42
Bioaccumulative potential	No additional information available

SODIUM HYPOCHLORITE (7681-52-9)	
Partition coefficient n-octanol/water (Log Kow)	-3.42

12.4. Mobility in soil

SUDBAK BRM (7681-52-9)	
Mobility in soil	No additional information available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal Considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
1791	1791	1791
14.2. UN Proper Shipping Name		
HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	Hypochlorite solution

SANS	IMDG	IATA
14.3. Transport hazard class(es)		
8	8	8
		
14.4. Packing group, if applicable		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

SANS

Special provisions (SANS)	:	223
Limited quantities (SANS)	:	5 L
Limited quantities (SANS)	:	5 L
Packagings, large packagings and IBCs Packing instructions (SANS)	:	P001, IBC03, LP01
Portable tank and bulk containers instructions (SANS)	:	T4
Portable tank and bulk container special provisions (SANS)	:	TP2, TP24

IMDG

Special provisions (IMDG)	:	223, 274, 900
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP2, TP24
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	:	B
Segregation (IMDG)	:	SGG8, SG20
Properties and observations (IMDG)	:	Liquid with chlorine odour. In contact with acids, evolves very irritating and corrosive gases. Mildly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y841
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	852
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	856
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A3, A803
ERG code (IATA)	:	8L

14.7. Transport in bulk according to IMO instructions

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

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Abbreviations and acronyms : ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE - Acute Toxicity Estimate
BCF - Bioconcentration factor
BLV - Biological limit value
BOD - Biochemical oxygen demand (BOD)
COD - Chemical oxygen demand (COD)
DMEL - Derived Minimal Effect level
DNEL - Derived-No Effect Level
EC-No. - European Community number
EC50 - Median effective concentration
EN - European Standard
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Median lethal concentration
LD50 - Median lethal dose
LOAEL - Lowest Observed Adverse Effect Level
NOAEC - No-Observed Adverse Effect Concentration
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
OECD - Organisation for Economic Co-operation and Development
OEL - Occupational Exposure Limit
PBT - Persistent Bioaccumulative Toxic
PNEC - Predicted No-Effect Concentration
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS - Safety Data Sheet
STP - Sewage treatment plant
ThOD - Theoretical oxygen demand (ThOD)
TLM - Median Tolerance Limit
VOC - Volatile Organic Compounds
CAS-No. - Chemical Abstract Service number
N.O.S. - Not Otherwise Specified
vPvB - Very Persistent and Very Bioaccumulative
ED - Endocrine disrupting properties

Full text of H-statements:	
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), South Africa (HCA)

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