MOOS- & ALGENENTFERNER LIQ

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

1.1 Product identifier

MOOS- & ALGENENTFERNER LIQ

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

Use of the substance/mixture

Biocidal products

1.3 Details of the supplier of the safety data sheet

Company name: ARCORA International GmbH
Street: Marsstraße 9
Place: D-85609 Aschheim
Telephone: +49 (0)89 / 14 33 29 3-0 Telefax: +49 (0)89 / 14 33 29 3-29
e-mail: info@arcora.de

1.4 Emergency telephone number:

Giftnotruf der Charité - Universitätsmedizin Berlin -24H- Tel.: 030 30686700

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Skin corrosion/irritation: Skin irritant. 2
Serious eye damage/eye irritation: Eye damage 1 Hazardous to the aquatic environment: Aqu. acute 1 Hazardous to the aquatic environment: Aqu. chron. 2
Hazard statements:
Causes skin irritation.
Causes serious eye damage.
Very toxic to aquatic organisms.
Toxic to aquatic organisms, with long lasting effects.

2.2 Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Sodium hypochlorite solution ... % Cl active

Signal word: danger
Pictograms:

Hazard warnings

H315	Causes skin irritation.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Safety instructions

P102	Keep out of the reach of children.
P261	Avoid inhalation of dust/fume/gas/mist/vapour/aerosol.
P273	Avoid release into the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove any contact lenses if possible. Continue rinsing
P501	Dispose of contents/container to a suitable recycling or disposal facility.

Special labelling of certain mixtures

EUH206	Caution! Do not use together with other products as dangerous gases (chlorine) may be released.

Note on labelling

Labelling in accordance with Regulation (EC) No 1272/2008 [CLP].

2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, Annex XIII.
The product is: alkaline.
Use biocides carefully. Always read the label and product information before use.

SECTION 3: Composition / information on ingredients

3.1 Mixtures

Chemical characterisation

watery solution

Hazardous ingredients

CAS-No.	Name of agent			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1310-58-3	Sodium hypochlorite solution ... % Cl active			3- < 4,5 %
	231-668-3		01-2119488154-34	
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H290 H314 H318 H400 H410 EUH031			

Wording of H- and EUH-phrases: see section 16.

Specific concentration limits, M-factors and ATE

CAS No	EC No	Name of agent	Quantity
	Specific concentration limits, M-factors and ATE		
7681-52-9	231-668-3	Sodium hypochlorite solution ... % Cl active	3- < 4,5 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg M acute; H400: M=10 M chron.; H410: M=1 EUH; EUH031: >= 5 - 100		

SECTION 4: First aid measures

4.1 Description of the first aid measures

General notes

Remove contaminated, soaked clothing immediately. If there is a risk of unconsciousness, position and transport in a stable lateral position.

After inhalation

Provide fresh air. In all cases of doubt or if symptoms are present, seek medical advice.

After skin contact

After contact with skin, wash immediately with polyethylene glycol, then with plenty of water. Remove all contaminated clothing immediately and wash before reuse. In case of skin irritation: Seek medical advice/attention. Cover wound sterilely.

After eye contact

In case of contact with eyes, rinse immediately with running water for 10 to 15 minutes with the eyelids open and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.
Causes severe eye damage.
Inhalation: Mucous membrane irritation, coughing.

4.3 Indications for immediate medical help or special treatment

Symptomatic treatment.
In case of lung irritation: Initial treatment with corticoid spray, e.g. Auxiloson, Pulmicort metered dose aerosol. (Auxiloson and Pulmicort are registered trademarks).

SECTION 5: Fire fighting measures

5.1 Extinguishing agent

Suitable extinguishing agents

Adapt extinguishing measures to the surroundings.
Water spray.

For large fires and large quantities: Water spray, alcohol-resistant foam.

Unsuitable extinguishing agents

Full jet of water.

5.2 Special hazards arising from the substance or mixture

Non-flammable.
In case of fire may be released: Chlorine, caustic soda.
Heating or fire may release toxic gases. May intensify fire; oxidiser.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and chemical protective suit. Full protective suit.

Additional hints

Knock down gases/vapours/mist with water spray jet. Collect contaminated extinguishing water separately. Do not allow to enter drains or watercourses. Cool containers/tanks with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General notes

Ensure adequate ventilation. Do not breathe gas/fume/vapour/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective equipment.
Keep people away and stay on windward side.
The product is oxidising when dry.

Staff not trained for emergencies

Use personal protective equipment.

Task forces

Wear self-contained breathing apparatus and chemical protective suit. Keep people away and stay on the side facing the wind.

6.2 Environmental protection measures

Do not allow to enter drains or water courses.
Dilute with plenty of water.

6.3 Methods and material for retention and cleaning

For retention

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

For cleaning

Clean contaminated surfaces thoroughly. Wash off with plenty of water.

Further information

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders). Treat the absorbed material according to the section Disposal. After cleaning, rinse away traces with water.

6.4 Reference to other sections

Safe handling: see section 7
Personal protective equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Notes on safe handling

In case of open handling, use equipment with local exhaust ventilation. Do not inhale gas/fume/vapour/aerosol. Use personal protective equipment. Store in a container with ventilation.

Notes on fire and explosion protection

Not flammable.
Usual measures of preventive fire protection.

Further information on handling

Clean floor and contaminated objects with: Water.

7.2 Conditions for safe storage taking into account incompatibilities

Requirements for storage rooms and containers

Keep container tightly closed. Store under lock and key. Store in a place accessible only to authorised persons. Ensure adequate ventilation and spot extraction at critical points. Store only in the original container in a cool, well-ventilated place.

Information on storage in one place

Do not store together with: Acid.

Further information on storage conditions

Store in a cool place. Storage temperature: < 15°C. Protect against: Heat, UV radiation/sunlight.

Storage class according to TRGS 510: 8B (non-flammable corrosive hazardous substances)

7.3 Specific end uses

Biocidal products: Products for the treatment of non-metallic surfaces.

GISCODE/Product Code: GD13

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Occupational exposure limit values (TRGS 900)

CAS No	Name of agent	ppm	mg/m³	F/m³	Tip designation	Type
7782-50-5	chlorine	0,5	1,5		1(I)	

DNEL/DMEL values

CAS No	Name of agent		
DNEL type	Exposure route	Effect	Value
7681-52-9	Sodium hypochlorite solution ... % Cl active		
Worker DNEL, acute	inhalative	local	3,1 mg/m³
Worker DNEL, acute	inhalative	systemic	3,1 mg/m³
Worker DNEL, long term	inhalative	local	1,55 mg/m³

Worker DNEL, long term	inhalative	systemic	1,55 mg/m³
Consumer DNEL, long term	inhalative	local	1,55 mg/m³
Consumer DNEL, long term	inhalative	systemic	1,55 mg/m³
Consumer DNEL, long term	oral	systemic	0,26 mg/kg KG/d

PNEC-values

CAS No	Name of agent
Environmental compartment	Value
7681-52-9	Sodium hypochlorite solution ... % Cl active
Freshwater	0,00021 mg/l
Fresh water (intermittent release)	0,00026 mg/l
Seawater	0,000042 mg/l
Secondary poisoning	11,1 mg/kg
Microorganisms in sewage treatment plants	0,03 mg/l

Additional notes on limit values

The lists valid at the time of compilation served as a basis.

8.2 Exposure controls and monitoring

Suitable technical control devices

In case of open handling, use equipment with local exhaust ventilation. Do not inhale gas/fume/vapour/aerosol.

Protection and hygiene measures

Immediately remove soiled, saturated clothing. Draw up a skin protection plan and follow it! Wash hands and face thoroughly before breaks and at the end of work, shower if necessary. Do not eat or drink while working.

Eye/face protection

Suitable eye protection: Basket goggles.

Hand protection

When handling chemical agents, only chemical protective gloves with a CE mark including a four-digit test number may be worn. The design of chemical protective gloves must be selected specifically for the workplace, depending on the concentration and quantity of hazardous substances. It is recommended to clarify the chemical resistance of the above-mentioned protective gloves for special applications with the glove manufacturer.

Glove material:
Penetration time = > 480 min
PVC (polyvinyl chloride). (0.7 mm), nitrile rubber (0.4 mm), chloroprene (0.5 mm), butyl rubber (0.7 mm), fluorocarbon rubber (0.7 mm). Wear cotton undergloves if possible.
Do not use leather gloves.

Body protection

Wear suitable protective clothing during work. Body protection (in addition to normal work clothing) is required to protect against direct skin contact. Suitable body protection: protective apron, rubber boots.

Breathing protection

Wear respiratory protection in case of insufficient ventilation. Suitable breathing apparatus: Filtering apparatus (full face mask or mouthpiece set) with filter: B-P2, B-P3, combination filtering apparatus (EN 14387) ABEK-P2, self-contained breathing apparatus (EN 133).

Limitation and monitoring of environmental exposure

Do not allow to enter drains or water courses. Do not allow to enter the ground/soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	light
Colour:	yellow - green
Odour:	after chlorine
Gerisch threshold:	not determined
pH-value (at 20°C):	pH > 11

Changes of state

Melting point:	not determined
Boiling point or initial boiling point and Boiling range:	not determined
Flash point:	not applicable

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

Explosion hazards

Not explosive.

Lower explosion limit:	not applicable
Upper explosion limit:	not applicable

Ignition temperature: not applicable

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Fire promoting properties

Not oxidising.

Vapour pressure:	not determined
Density (at 20 °C):	approx. 1.05 g/cm³.
Solubility in water: (at 20 °C)	soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Dyn. viscosity:	not determined
Relative vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Solids content: not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

Corrosive to metals. Possibility of hazardous reactions. Decomposition with: Acid.
The product is oxidising when dried.

10.2 Chemical stability

Stable under specified storage conditions.

10.3 Possibility of hazardous reactions

Exothermic reaction with: Acid, peroxides, oxidising agents.

10.4 Conditions to avoid

Protect from heat. Protect contents from exposure to light.
To avoid thermal decomposition, do not overheat.
The product is oxidising when dried.

10.5 Incompatible materials

Metal. Keep away from: Acid, oxidising agents, peroxides. Do not mix with acids. Copper, Copper alloys, iron, aluminium, steel, ammonia, ammonium salts, amines.

10.6. Hazardous decomposition products

Formation of: Chlorine. In contact with acid, emits toxic gases.
Oxygen

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

CAS-Nr.	Name of agent				
	Exposure route	Dose	Species	Source	Method
7681-52-9	Sodium hypochlorite solution ... % Cl active				
	oral	LD50 > 5000 mg/kg	rat	OECD TG 401	
	dermal	LD50 > 5000 mg/kg	rabbit	OECD TG 402	

Irritant and corrosive effect

Causes skin irritation.
Causes severe eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.
Does not cause sensitisation in laboratory animals.
Guinea pig: not sensitising. Regulation (EC) No 440/2008, Annex, B.6 (Buehler test)

Carcinogenic, mutagenic and toxic for reproduction effects

Based on available data, the classification criteria are not met.

Specific target organ toxicity at single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity in case of repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Other information on examinations

The mixture is classified as dangerous according to Regulation (EC) No 1272/2008 [CLP].

11.2. Information on other hazards

Endocrine disrupting properties

There is no information available.

SECTION 12: Environmental information

12.1 Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
The product may cause changes in the pH-value in waters and thus cause harmful effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
7681-52-9	Sodium hypochlorite solution ... % Cl active					
	Acute fish toxicity	LC50 0,01 – 0,1 mg/l	96 h	Fish		
	Acute Crustacean toxicity	EC50 0,01 - 0,1 mg/l	48 h	Daphnia		
	Acute bacterial toxicity	(0,375 mg/l)	96 h	Activated sludge		

12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.
Half-life: 2 h
The substance is hydrolytically unstable (the half-life of hydrolysis is < 12 h).
On exposure to light: Thermal decomposition.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

No information available.

12.5. Results of the PBT and vPvB assessment

Inorganic. This substance does not meet the PBT/vPvB criteria of the REACH Regulation, Annex XIII.

12.6. Other adverse effects

There is no information available.

12.7. Other adverse effects

Regulation (EC) No 2037/2000 on substances that deplete the ozone layer..: The substance has no ozone-depleting potential. When discharged into biological wastewater treatment plants, depending on local conditions and concentrations present, interference with the degradation activity of activated sludge is possible.

Further notes

Do not allow to enter drains or water courses. Do not allow to enter the ground/soil.

SECTION 13: Notes on disposal

13.1 Waste treatment process

Recommendations for disposal

Do not allow to enter drains or water courses. Do not allow to enter the ground/soil. Dispose of in accordance with official regulations.

Reducing agent: sodium sulphite, sodium thiosulphate.

Waste code - unused product

060205 WASTES FROM ANORGANIC CHEMICAL PROCESSES; wastes from MFSU of bases; other bases; hazardous waste

Waste code - uncleaned packaging

150102 PACKAGING WASTE, SUFFIERS, WIPERS, FILTER MATERIALS AND PROTECTIVE CLOTHING (A.N.G.); Packagings (including separately collected municipal packaging waste); plastic packaging

Disposal of uncleaned packaging and recommended cleaning agents

Non-contaminated and empty packaging can be recycled. Contaminated packaging must be treated in the same way as the substance.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number:	UN 1791
14.2 UN proper shopping name:	HYPOCHLORITE SOLUTION
14.3 Transport hazard class(es):	8
14.4 Packing group:	II
Hazard label:	8

Classification code:	C9
Special provisions:	521
Limited quantity (LQ):	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Inland waterway transport (ADN)

14.1. UN number or ID number:	UN 1791
14.2. UN proper shipping name:	HYPOCHLORITE SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8

Classification code:	C9
Special provisions:	521
Limited quantity (LQ):	1 L
Exempted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1791
14.2. UN proper shipping name:	HYPOCHLORITE SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8

Special provisions:	-
Limited quantity (LQ):	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Separation group:	hypochlorites

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1791
14.2. UN proper shipping name	HYPOCHLORITE SOLUTION
14.3. Transport hazard class:	8
14.4. Packing group:	II
Hazard label:	8

Special provisions:	A3 A803
Limited Quantity (LQ) Passenger:	0.5 L
Passenger LQ:	Y840
Excepted quantity:	E2
IATA Packing Instruction - Passenger:	851
IATA Maximum Quantity - Passenger:	1 L
IATA packing instruction - Cargo:	855
IATA Maximum Quantity - Cargo:	30 L

14.5. Environmental hazards
ENVIRONMENTALLY DANGEROUS: Yes

14.6. Special precautions for the user
Caution: highly corrosive.

14.7. Carriage in bulk by sea in accordance with IMO instruments
No information available.

SECTION 15: Regulatory information

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

EU regulations

Restrictions on use (REACH, Annex XVII):
Entry 3
Information on SEVESO III Directive 2012/18/EU: E1 Hazardous to the aquatic environment

Additional hints

Labelling in accordance with Regulation (EC) No 1272/2008 [CLP].

National regulations

Employment restriction:	Observe employment restrictions for young people (§ 22 JArbSchG).
Technical Instructions on Air Quality I: 5.2.1:	Total dust, including fine dust at m > 0.2 kg/h: conc. 20mg/m³ or at <= 0.2 kg/h: Conc. 0.15 g/m³
Proportion:	0,49 %
Water hazard class:	2 - clearly hazardous to water
Status:	Classification of mixtures according to Appendix 1, No 5 AwSV
Biocide Registration Number:	N-78843

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out for the following substances in this mixture:
Sodium hypochlorite solution ... % Cl active

SECTION 16: Other information

Changes

This data sheet contains changes to the previous version in the section(s): 1,5,6,7,13.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Classification of mixtures and assessment method used according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method

Eye Dam. 1; H318	Calculation method
Aquatic Acute 1; H400	
Aquatic Chronic 2; H411	Calculation method

Wording of H and EUH phrases (number and full text)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes severe eye damage.
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.
EUH031	Contact with acids liberates toxic gas.
EUH206	Caution! Do not use with other products as hazardous gases (chlorine) may be released.

Further Information

The information is based on the current state of our knowledge, but does not constitute a guarantee of product properties and does not establish a contractual legal relationship. Existing laws and regulations are to be observed by the recipient of our products at his own responsibility.

Supplier: 71051

(The data of the hazardous ingredients were taken from the latest safety data sheet of the supplier).