

1. Identification of the substance/preparation and of the company/undertaking

Product Name BIO-CHLOR PLUS

UN/ID No. NA1760

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Liquid Non-phosphate cleaner.

Uses advised against No information available

Supplier Address

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

Emergency telephone number

Chemtrec 1-800-424-9300

2. Hazards identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation Category 1 Sub-category B

Serious Eye Damage/Irritation Category 1

Corrosive to Metals Category 1



Label Elements

Signal word: **Danger**

Hazard Statements

Causes severe skin burns and eye damage.

May be corrosive to metals.

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep only in original container.

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician. Specific treatment (see Section 4 on the SDS).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Absorb spillage to prevent material damage.

Precautionary Statements - Storage

Store locked up. Store in a corrosive resistant container.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Other Information

May be harmful if inhaled.

Toxic to aquatic life with long lasting effects

Toxic to aquatic life

3. Composition/information on ingredients

Chemical Name	CAS Number	% by Weight
Sodium Hydroxide	1310-73-2	10 - 15
Sodium Hypochlorite	7681-52-9	1 - 5

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

General advice

Immediate medical attention is required.

Eye contact

Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

Skin Contact

Flush with water for 15 minutes. If irritation persists after rinsing, get medical attention. Remove contaminated clothing and wash before reuse.

Inhalation

Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention.

Ingestion

Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

Self-protection of the first aider

Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms

Corrosive. Causes irritation (possibly severe), burns to the eyes. May cause permanent eye damage. Causes irritation (possibly severe), burns to the skin. Causes irritation (possibly severe), burns, pulmonary edema to the respiratory tract. Causes irritation (possibly severe), burns, nausea, vomiting to the gastrointestinal tract. The severity of effects depend on concentration and how soon after exposure the area is washed.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

If the stock solution container breaks, the solution should be handled with care as it is corrosive. Direct contact with water can cause a violent exothermic reaction. Highly exothermic reactions with organic or oxidizable materials may cause fires in adjacent, heat sensitive material.

Hazardous combustion products

Toxic fumes of sodium oxide, HOCL, chlorine, HCl, NaCl, sodium chlorate and oxygen

Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, SH/NIOSH (approved or equivalent) and full protective gear. Use water spray to cool fire exposed containers. Move containers from fire area if you can do it without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment.

Environmental precautions

See Section 12 for additional ecological information.

Methods for containment

Completely contain spilled material with dikes or sand bags, etc.

Methods for cleaning up

Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed and properly labeled. Containers that have been emptied will retain product residue and should be handled as if they were full. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas can be generated.

Incompatible materials

Oxidizing agent. Acids. Bases. Amines. Reducing agent. Metals (Aluminum, magnesium, zinc, copper, lead, tin and their alloys), Ammonia. Organic material. Cleaner, detergents/soaps. Peroxides.

8. Exposure controls/personal protection

Control parameters

Exposure Guideline

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Appropriate engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear protective splash proof safety goggles. Additional full face protection is recommended if splashing is a possibility. Avoid contact with eyes.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Wash contaminated clothing before reuse.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	liquid
Color	clear light yellow
Odor	Slight chlorine
Odor threshold	No information available
pH	12.2 - 12.7, 1% Solution
Melting point/freezing point	No information available
Boiling point / boiling range	No information available
Flash point	Not applicable
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability upper limit in air	No information available
Flammability lower limit in air	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	1.192 - 1.222
Water solubility	Soluble in water
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available

Kinematic viscosity No information available
Dynamic viscosity No information available

10. Stability and reactivity

Reactivity

No information available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Will react with some metals forming flammable hydrogen gas. Will react with acids to produce chlorine gas.

Incompatible materials

Oxidizing agent. Acids. Bases. Amines. Reducing agent. Metals (Aluminum, magnesium, zinc, copper, lead, tin and their alloys), Ammonia. Organic material. Cleaner, detergents/soaps. Peroxides.

Hazardous Decomposition Products

Toxic fumes of sodium oxide, HOCl, chlorine, HCl, NaCl, sodium chlorate and oxygen.

11. Toxicological information

Information on likely routes of exposure

Product Information No information available

Inhalation Causes irritation (possibly severe), burns, pulmonary edema to the respiratory tract.

Eye contact Causes irritation (possibly severe), burns to the eyes. May cause permanent eye damage.

Skin Contact Causes irritation (possibly severe), burns to the skin.

Ingestion Causes irritation (possibly severe), burns, nausea, vomiting to the gastrointestinal tract.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-
Sodium Hypochlorite 7681-52-9	= 8200 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available

Germ cell mutagenicity No information available

Carcinogenicity No information available

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium Hypochlorite 7681-52-9	-	Group 3	-	-

Reproductive toxicity No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Aspiration hazard No information available

Numerical measures of toxicity - Product Information

ATEmix (dermal) 10883 mg/kg

12. Ecological information

Ecotoxicity

3% of the mixture consists of components(s) of unknown hazards to the aquatic environment

BIO-CHLOR PLUS

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium Hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Sodium Hypochlorite 7681-52-9	0.095: 24 h Skeletonema costatum mg/L EC50	0.06 - 0.11: 96 h Pimephales promelas mg/L LC50 flow-through 4.5 - 7.6: 96 h Pimephales promelas mg/L LC50 static 0.4 - 0.8: 96 h Lepomis macrochirus mg/L LC50 static 0.28 - 1: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.771: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.03 - 0.19: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.18 - 0.22: 96 h Oncorhynchus mykiss mg/L LC50 static	2.1: 96 h Daphnia magna mg/L EC50 0.033 - 0.044: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability No information available
Bioaccumulation No information available
Other adverse effects No information available

13. Disposal considerations

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging Do not reuse container.

Chemical Name	California Hazardous Waste Status
Sodium Hydroxide 1310-73-2	Toxic, Corrosive

14. Transport information

DOT Regulated
UN/ID No. NA1760
Proper shipping name Compounds, Cleaning Liquid
Hazardous ingredients (Sodium Hydroxide/Sodium Hypochlorite)
Hazard class 8
Packing group II

15. Regulatory information

US Federal Regulations

SARA 311/312 Hazards

Skin Corrosion/Irritation
 Serious Eye Damage/Irritation
 Corrosive to Metals

CWA (Clean Water Act)

This product does contain substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	Reportable Quantities	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Sodium Hydroxide 1310-73-2	1000 lb	-	-	X
Sodium Hypochlorite 7681-52-9	100 lb	-	-	X

CERCLA

This material, as supplied, contains substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium Hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
Sodium Hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	Health hazards	3	Flammability	0	Instability	1	Physical and Chemical Properties	-
HMIS	Health hazards	3	Flammability	0	Physical hazards	1	Personal protection	x
Prepared By	lmt							
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Revision Note	15-Feb-2023 Review and update							

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet