Safety Data Sheet

your partner in food safety

Issue Date: 15-Aug-2019 **Revision Date:** 15-Aug-2019 **Version** 1

1. IDENTIFICATION

Product identifier

Product Name CIP-erior

Other means of identification

SDS # BIR-900

Product Code I03066
UN/ID No UN1760

Recommended use of the chemical and restrictions on use

Recommended Use Clean in place cleaner.

Details of the supplier of the safety data sheet

Supplier Address
Birko Corporation
9152 Yosemite Street
Henderson, CO 80640-8027
www.birkocorp.com

Emergency telephone number

Company Phone Number Phone: 303-289-1090 or 1-800-525-0476
Fax: 303-289-1190
Emergency Telephone Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Appearance Clear to slightly hazy **Physical state** Liquid **Odor** Detergent

Classification

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard statements
Causes severe skin burns and eye damage

Precautionary Statements - Prevention
Do not breathe dusts or mists
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Immediately call a POISON CENTER or doctor
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other hazards
Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Sodium hydroxide	1310-73-2	25-30
Potassium hydroxide	1310-58-3	1-10
Sodium chlorate	7775-09-9	<1
Sodium carbonate	497-19-8	<1
Tetrasodium EDTA	64-02-8	<1

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice Immediately call a poison center or doctor/physician.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

Skin Contact Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhalation Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.

Ingestion Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms May be harmful if swallowed. May be harmful in contact with skin. Causes severe skin burns and eye damage.

Indication of any immediate medical attention and special treatment needed

Notes to Physician 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 Not determined.

Specific Hazards Arising from the Chemical
Not determined.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental precautions

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

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
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m^3	(vacated) Ceiling: 2 mg/m^3	Ceiling: 2 mg/m^3

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Clear to slightly hazy	**Odor**	Detergent
Color	Light amber yellow to yellow or amber	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	12.6	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	Not determined	
Lower flammability or explosive limits	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Relative Density	1.36	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	Not determined	
Decomposition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to Avoid
Keep out of reach of children.

Incompatible materials
None known based on information supplied.

Hazardous decomposition products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact May be harmful in contact with skin.

Inhalation Do not inhale.

Ingestion May be harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hydroxide 1310-73-2	140 - 340 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Potassium hydroxide 1310-58-3	= 284 mg/kg (Rat)	-	-
Sodium Chloride 7647-14-5	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m^3 (Rat) 1 h
Potassium Silicate 1312-76-1	= 5700 mg/kg (Rat)	-	-
Sodium chlorate 7775-09-9	= 6250 mg/kg (Rat) = 4950 mg/kg (Rat)	> 10 g/kg (Rabbit) > 2000 mg/kg (Rabbit)	> 5.59 mg/L (Rat) 4.5 h > 28 g/m^3 (Rat) 1 h
Sodium carbonate 497-19-8	= 4090 mg/kg (Rat)	-	-
Tetrasodium EDTA 64-02-8	= 10 g/kg (Rat) = 1658 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

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

Skin corrosion/irritation Causes severe skin burns.

Serious eye damage/eye irritation Causes severe eye damage.

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

Oral LD50 4,732.00 mg/kg
Dermal LD50 4,360.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium hydroxide 1310-73-2		45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	
Potassium hydroxide 1310-58-3		80: 96 h Gambusia affinis mg/L LC50 static	
Sodium Chloride 7647-14-5		6420 - 6700: 96 h Pimephales promelas mg/L LC50 static 7050: 96 h Pimephales promelas mg/L LC50 semi-static 6020 - 7070: 96 h Pimephales promelas mg/L LC50 static 12946: 96 h Lepomis macrochirus mg/L LC50 static 4747 - 7824: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 5560 - 6080: 96 h Lepomis macrochirus mg/L LC50 flow-through	1000: 48 h Daphnia magna mg/L EC50 340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static
Potassium Silicate 1312-76-1		3185: 96 h Brachydanio rerio mg/L LC50 semi-static 301 - 478: 96 h Lepomis macrochirus mg/L LC50	216: 96 h Daphnia magna mg/L EC50
Sodium chlorate 7775-09-9		1750: 96 h Oncorhynchus mykiss mg/L LC50 4200: 24 h Oncorhynchus mykiss mg/L LC50 13500: 96 h Pimephales promelas mg/L LC50 7090: 96 h Cyprinus carpio mg/L LC50	1093: 24 h Daphnia magna mg/L EC50
Sodium carbonate 497-19-8	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static	265: 48 h Daphnia magna mg/L EC50
Tetrasodium EDTA 64-02-8	1.01: 72 h Desmodesmus subspicatus mg/L EC50	41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static	610: 24 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Potassium hydroxide 1310-58-3	0.65 0.83

Other Adverse Effects

Not determined

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 Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Sodium hydroxide 1310-73-2	Toxic Corrosive
Potassium hydroxide 1310-58-3	Toxic Corrosive
Sodium chlorate 7775-09-9	Toxic Ignitable
Sodium carbonate 497-19-8	Corrosive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN1760
Proper Shipping Name Compounds, cleaning liquid (Potassium hydroxide, Sodium hydroxide)
Hazard class 8
Packing Group II

IATA

UN number UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Potassium hydroxide, Sodium hydroxide)
Transport hazard class(es) 8
Packing Group II

IMDG

UN number UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Potassium hydroxide, Sodium hydroxide)
Transport hazard class(es) 8
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Sodium hydroxide	X	X	X	X	X	X	X	X
Potassium hydroxide	X	X	X	X	X	X	X	X
Sodium Chloride	X	X	X	X	X	X	X	X
Potassium Silicate	X	X	X	X	X	X	X	X
Sodium chlorate	X	X	X	X	X	X	X	X
Sodium carbonate	X	X	X	X	X	X	X	X
Tetrasodium EDTA	X	X	X	X	X	X	X	X

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

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
Potassium hydroxide 1310-58-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide	1000 lb			X
Potassium hydroxide	1000 lb			X

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide 1310-73-2	X	X	X
Potassium hydroxide 1310-58-3	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	2	0	2	-
HMIS	**Health Hazards**	**Flammability**	**Physical hazards**	**Personal Protection**
	2	0	2	J

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Revision Note: New format

Disclaimer

The information provided in this 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