



your partner in food safety

Issue Date: 12-Nov-2018

Revision Date: 20-Nov-2018

Version 1

Safety Data Sheet

1. IDENTIFICATION

Product identifier

Product Name Bru-R-Ez

Other means of identification

SDS # BIR-064

Product Code I00122
UN/ID No UN1759

Recommended use of the chemical and restrictions on use

Recommended Use Alkaline non-caustic cleaner for mash tun, brew kettle, fermenters, heat exchanger, lines, kegs, etc. for brewing industry.

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

2. HAZARDS IDENTIFICATION

Appearance Light tan powder

Physical state Solid

Odor Detergent

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

Signal Word

Danger

Hazard statements

Harmful if swallowed
Harmful if inhaled
Causes severe skin burns and eye damage

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Do not breathe dusts or mists
 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: Call a POISON CENTER or doctor if you feel unwell
 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 carbonate	497-19-8	20-30
Sodium percarbonate	15630-89-4	20-30
Sodium metasilicate	6834-92-0	10-20

**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	Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting.
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Most important symptoms and effects, both acute and delayed

Symptoms	May be harmful in contact with skin. Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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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.
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Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
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Methods for Clean-Up	Keep in suitable, closed containers for disposal.
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7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Do not breathe dusts or mists. Wear protective gloves/protective clothing and eye/face protection.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Store locked up.
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Incompatible Materials	None known based on information supplied.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium metasilicate 6834-92-0	2 mg/m ³	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	Solid	Odor	Detergent
Appearance	Light tan powder	Odor Threshold	Not determined
Color	light tan		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	11.7 @ 1%	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
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	Not determined	
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	Harmful if inhaled.
Ingestion	Harmful if swallowed.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Tripolyphosphate Anhydrous 7758-29-4	= 3120 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	-
Sodium carbonate 497-19-8	= 4090 mg/kg (Rat)	-	-
Sodium percarbonate 15630-89-4	= 1034 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Sodium metasilicate 6834-92-0	= 1153 mg/kg (Rat)	-	-
Ethoxylated Polyoxypropylene 9003-11-6	= 5700 mg/kg (Rat) = 16 g/kg (Rat)	-	= 320 mg/m ³ (Rat) 4 h
Sodium Silicate 1344-09-8	= 1960 mg/kg (Rat)	> 4640 mg/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Please see section 4 of this SDS for symptoms.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes severe skin burns.
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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 1,942.10 mg/kg

Dermal LD50 3,782.98 mg/kg

ATEmix (inhalation-dust/mist) 1.71 mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Sodium Tripolyphosphate Anhydrous 7758-29-4		1650: 48 h Leuciscus idus mg/L LC50	
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
Sodium percarbonate 15630-89-4	70: 240 h Chlorella emersonii mg/L EC50	70.7: 96 h Pimephales promelas mg/L LC50 static	4.9: 48 h Daphnia pulex mg/L EC50
Sodium metasilicate 6834-92-0		210: 96 h Brachydanio rerio mg/L LC50 semi-static 210: 96 h Brachydanio rerio mg/L LC50	216: 96 h Daphnia magna mg/L EC50
Sodium Silicate 1344-09-8		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

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Not determined

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 carbonate 497-19-8	Corrosive
Sodium percarbonate 15630-89-4	Ignitable

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 UN1759
 Proper Shipping Name Corrosive solid, n.o.s. (sodium metasilicate)
 Hazard class 8
 Packing Group II

IATA

UN number UN1759
 Proper Shipping Name Corrosive solid, n.o.s. (sodium metasilicate)
 Transport hazard class(es) 8
 Packing Group II

IMDG

UN number UN1759
 Proper Shipping Name Corrosive solid, n.o.s. (sodium metasilicate)
 Transport hazard class(es) 8
 Packing Group II

15. REGULATORY INFORMATION**International Inventories**

Chemical name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Sodium Triphosphate Anhydrous	X	X	X	X	X	X	X	X
Sodium carbonate	X	X	X	X	X	X	X	X
Sodium percarbonate	X	X	X	X	X	X	X	X
Sodium metasilicate	X	X	X	X	X	X	X	X
Ethoxylated Polyoxypropylene	X	X		X	X	X	X	X
Tetrasodium EDTA		X		X	X		X	X
Sodium Alkane Sulfonate	X	X	X	X	X	X	X	X
Sodium Silicate	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**

This material, as supplied, does not contain any 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).

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)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	1	0	1	-
<u>HMIS</u>	Health Hazards	Flammability	Physical hazards	Personal Protection
	1	0	0	E

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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