SAFETY DATA SHEET

Revision Date 10-Aug-2023 **Version** 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **FB-1559**

Other means of identification

Product Code 21559

Recommended use of the chemical and restrictions on use

Recommended Use Scale Inhibitor

Uses advised against Follow the directions for use on the label when applying this product

Details of the supplier of the safety data sheet

Manufacturer Address

Safe Foods Chemical Innovations
1501 E. 8th Street
North Little Rock, AR 72114

Emergency telephone number

Company Phone Number 501-758-8500

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed
Causes skin irritation
Causes serious eye damage
Suspected of causing cancer

Physical state Aqueous solution **Color** Colorless to yellowish **Odor** Characteristic

Precautionary Statements – Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements – Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see Section 4 on SDS)
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: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse
IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements – Storage

Store locked up. Store in corrosive resistant container with a resistant inner liner.

Precautionary Statements – Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Not applicable
Other Information
• Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	weight-%
Water	7732-18-5	50-90
Ethylenediaminetetraacetic acid tetrasodium salt	64-02-8	10-50
Sodium hydroxyacetate	2836-32-0	1-5
Sodium hydroxide	1310-73-2	1-5
Nitrilotriacetic acid, trisodium salt	5064-31-3	1-5

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

4. FIRST AID MEASURES

First aid measures
Eye contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Seek immediate medical attention/advice.
Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists.
Inhalation Remove to fresh air. Administer oxygen if breathing is difficult. Call a physician immediately.
Ingestion Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.
Most important symptoms and effects, both acute and delayed
Symptoms See Section 11 for symptom information.
Indication of any immediate medical attention and special treatment needed
Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry chemical. Water spray (fog). Carbon dioxide (CO2). Foam.
Unsuitable extinguishing media No information available.
Specific hazards arising from the chemical
No information available.
Hazardous combustion products Nitrogen oxides. Carbon oxides.
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, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Personal precautions Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas. Stay upwind.
For emergency responders Isolate area. Keep unnecessary personnel away.
Environmental precautions
Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. See section 12 for additional ecological information.
Methods and material for containment and cleaning up
Methods for containment Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).
Methods for cleaning up Soak up with inert absorbent material. Collect spillage. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Use only in well-ventilated areas. Avoid breathing vapors or mists. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing.

Incompatible materials Amphoteric metals (aluminum, copper, zinc). Contact with metals may evolve flammable hydrogen gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies

Appropriate engineering controls

Engineering Controls Showers, eyewash stations, ventilation system.

Individual protection measures, such as personal protective equipment

Eye/face protection Splash proof chemical goggles and face shield.

Skin and body protection Chemical resistant gloves, suit and boots.

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 face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Aqueous solution		
Appearance	Liquid	**Odor**	Characteristic
Color	Colorless to yellowish	**Odor threshold**	No information available.

Property	**Values**	**Remarks • Method**
pH	11.4	± 0.5 @ 21 °C (1% solution)
Melting point / freezing point	-25 °C / -13 °F	
Boiling point / boiling range	106 °C / 223 °F	
Flash point	Not flammable	
Evaporation rate	< 0.8	
Flammability (solid, gas)	No information available.	
Flammability Limit in Air		
Upper flammability limit:	No information available.	
Lower flammability limit:	No information available.	
Vapor pressure	3.2 kPa @ 20 °C	
Vapor density	No information available.	
Specific Gravity	1.31 g/cc	
Water solubility	Soluble in water	
Solubility in other solvents	No information available.	
Partition coefficient	No information available.	
Autoignition temperature	No information available.	
Decomposition temperature	No information available.	
Kinematic viscosity	20 cSt @ 20°C	
Dynamic viscosity	No information available.	
Explosive properties	No information available.	
Oxidizing properties	No information available.	

Other Information

Softening point	No information available.
Molecular weight	No information available.
VOC Content (%)	No information available.
Density	No information available.
Bulk density	No information available.

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
None under normal processing.
Conditions to avoid
Elevated temperatures.
Incompatible materials
Amphoteric metals (aluminum, copper, zinc). Contact with metals may evolve flammable hydrogen gas.
Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Product Information

Inhalation Mist from this product may cause irritation of upper respiratory tract (nose and throat). Prolonged excessive exposure to mist may cause serious adverse effects.
Eye contact Solution will irritate or burn. Permanent eye damage is possible.
Skin contact Prolonged contact may cause irritation. Mist may cause skin irritation.
Ingestion Swallowing causes severe burns of mouth, throat and stomach. May irritate or burn tissue of gastrointestinal tract.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylenediaminetetraacetic acid tetrasodium salt - Glycine,N,N'-1,2-Ethanediylbis[N-(Carboxymethyl)-, Sodium Salt (1:4) 64-02-8	= 1658 mg/kg (Rat)	-	-
Sodium hydroxyacetate 2836-32-0	= 7110 mg/kg (Rat)	-	-
Sodium hydroxide 1310-73-2	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Nitrilotriacetic acid, trisodium salt 5064-31-3	= 1100 mg/kg (Rat)	-	> 5 mg/L (Rat) 4 h

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 Although large dietary doses of Nitrilotriacetic acid (NTA) have caused urinary tumors in laboratory animals, there is little likelihood that NTA could cause cancer in humans, especially at subtoxic doses. The trisodium salt of ethylenediaminetetraacetic acid did not cause cancer in laboratory animals.

Chemical Name	ACGIH	IARC	NTP	OSHA
Nitrilotriacetic acid, trisodium salt 5064-31-3	-	Group 2B	-	X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure In animals, effects have been reported on the following organs: Kidney. Urinary Tract. Respiratory system.
Aspiration hazard Risk of serious damage to the lungs (by aspiration).
Numerical measures of toxicity - Product Information
Unknown Acute Toxicity 44 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document
Oral LD50 1,269.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects
0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea

Ethylenediaminetetraacetic acid tetrasodium salt 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	-
Sodium hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Nitrilotriacetic acid, trisodium salt 5064-31-3	-	175 - 225: 96 h Lepomis macrochirus mg/L LC50 static 560 - 1000: 96 h Oryzias latipes mg/L LC50 560 - 1000: 96 h Oryzias latipes mg/L LC50 semi-static 560 - 1000: 96 h Poecilia reticulata mg/L LC50 560 - 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 72 - 133: 96 h Oncorhynchus mykiss mg/L LC50 static 93 - 170: 96 h Pimephales promelas mg/L LC50 flow-through 114: 96 h Pimephales promelas mg/L LC50 252: 96 h Lepomis macrochirus mg/L LC50 470: 96 h Pimephales promelas mg/L LC50 static	560 - 1000: 48 h Daphnia magna mg/L LC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility
Soluble in water.

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 Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

UN/ID No. 3267

Proper shipping name Corrosive liquid, basic, organic, n.o.s. (contains sodium hydroxide, tetrasodium ethylenediamine tetraacetate)

Hazard Class 8

Packing Group III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies

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

US Federal Regulations

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

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide 1310-73-2	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

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

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
Nitrilotriacetic acid, trisodium salt 5064-31-3	-	X	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	**Health hazards** 3	**Flammability** 0	**Instability** 0		**Physical and Chemical Properties** Corrosive, Alkaline
HMIS	**Health hazards** 3	**Flammability** 0	**Physical hazards** 0		**Personal protection** D (face shield, gloves, synthetic apron)

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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 health hazards given on this SDS apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of exposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

End of Safety Data Sheet