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Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product Name** CS-5170**Other means of identification****Product Code** 077
Synonyms None**Recommended use of the chemical and restrictions on use****Recommended Use** Closed Recirculating System Deposit & Corrosion Inhibitor.
Uses advised against No information available**Manufacturer 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
Serious eye damage/eye irritation	Category 1

Label elements**Emergency Overview****Danger****Hazard statements**

Causes severe skin burns and eye damage

**Appearance** aqueous solution**Physical state** liquid**Odor** None**Precautionary Statements - Prevention**Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling**Precautionary Statements - Response**Immediately call a POISON CENTER or doctor/physician
Specific treatment (see Section 4 on this label)
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/physician

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 at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 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

Hazards not otherwise classified (HNOC)**Other Information**

- May be harmful if swallowed
- Toxic to aquatic life

Unknown Acute Toxicity

11.9% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium Molybdate, dihydrate	10102-40-6	10	
Sodium nitrite	7632-00-0	3.3	
Sodium hydroxide	1310-73-2	1.5	

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

4. FIRST AID MEASURES

First aid measures

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 to fresh air. If breathing difficulty occurs or persists, get 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.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

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

No information available.

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.

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. Wash thoroughly after handling. Wear appropriate protective clothing/equipment. Do not breathe dust. Use with adequate ventilation. Do not ingest.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep container tightly closed.

Incompatible materials Strong acids. Aluminum. Zinc.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Molybdate, dihydrate 10102-40-6	TWA: 0.5 mg/m ³ Mo respirable fraction	TWA: 5 mg/m ³ Mo (vacated) TWA: 5 mg/m ³ Mo	IDLH: 1000 mg/m ³ Mo
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 safety glasses with side shields (or goggles).

Skin and body protection	Natural rubber, neoprene or nitrile gloves should be worn.
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	Odor	None
Appearance	aqueous solution	Odor threshold	No information available
Color	clear		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	12.8	
Melting point/freezing point	No information available	
Boiling point / boiling range	> 100 °C / >212 °F	
Flash point	Not applicable	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.130	
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	No information available	
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

None known.

Incompatible materials

Strong acids. Aluminum. Zinc.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	No data available
Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium nitrite 7632-00-0	= 85 mg/kg (Rat)	-	= 5.5 mg/L (Rat) 4 h
Sodium hydroxide 1310-73-2	-	= 1350 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 Molybdate, dihydrate 10102-40-6	A3	-	-	-
Sodium nitrite 7632-00-0	-	Group 2A	-	X

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

Unknown Acute Toxicity 11.9% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 2238 mg/kg
ATEmix (dermal) 69116 mg/kg
ATEmix (inhalation-dust/mist) 146.8 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

11.9% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea

Sodium nitrite 7632-00-0	-	0.19: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.092 - 0.13: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.4 - 0.6: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.65 - 1: 96 h Oncorhynchus mykiss mg/L LC50 static 2.3: 96 h Pimephales promelas mg/L LC50 flow-through 20: 96 h Pimephales promelas mg/L LC50 static	-
Sodium hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Sodium nitrite 7632-00-0	-3.7

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 nitrite 7632-00-0	Toxic Ignitable Reactive
Sodium hydroxide 1310-73-2	Toxic Corrosive

14. TRANSPORT INFORMATION**DOT**

Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply

IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:

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

DSL/NDL - 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**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

Chemical Name	SARA 313 - Threshold Values %
Sodium nitrite - 7632-00-0	1.0

SARA 311/312 Hazard Categories

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

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)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium nitrite 7632-00-0	100 lb	-	-	X
Sodium hydroxide 1310-73-2	1000 lb	-	-	X

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). 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 nitrite 7632-00-0	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final 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 nitrite 7632-00-0	X	X	X
Sodium hydroxide 1310-73-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

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Revision Note
 No information available

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