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Version 3

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product Name** CS-5450**Other means of identification****Product Code** 313**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Closed System 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)

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 2B
Reproductive toxicity	Category 1B

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

Harmful if swallowed

May damage fertility or the unborn child

Causes eye irritation

**Appearance** No information available**Physical state** No information available**Odor** None**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

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

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

If eye irritation persists: Get medical advice/attention

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

**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**

• Toxic to aquatic life

Unknown Acute Toxicity

1.4% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Sodium nitrite	7632-00-0	11	
TSRN1860	Proprietary	0 - 10%	

\*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.

**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**

<b>Personal precautions</b>	Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment.
<b>Environmental precautions</b>	Prevent run-off into ground or surface waters or sewers. See Section 12 for additional ecological information.
<b>Methods for containment</b>	Completely contain spilled material with dikes or sand bags, etc.
<b>Methods for cleaning up</b>	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**

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.
<b>Incompatible materials</b>	Acids. Ammonia. Strong reducing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
TSRN1860	STEL: 6 mg/m <sup>3</sup> inhalable fraction TWA: 2 mg/m <sup>3</sup> inhalable fraction	-	-

**Appropriate engineering controls**

Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear protective Neoprene™ gloves. Rubber gloves. Suitable protective clothing.

**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**

Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	No information available	<b>Odor</b>	None
<b>Appearance</b>	No information available	<b>Odor threshold</b>	No information available
<b>Color</b>	clear colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	10	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
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	1.092	
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**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	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**

Heat, flames and sparks.

**Incompatible materials**

Acids. Ammonia. Strong reducing agents.

**Hazardous Decomposition Products**

Nitrogen oxides (NOx).

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

<b>Product Information</b>	No data available
<b>Inhalation</b>	No data available.
<b>Eye contact</b>	Contact with eyes may cause irritation.
<b>Skin Contact</b>	Irritating to skin.
<b>Ingestion</b>	May be harmful if swallowed.

Chemical Name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
Sodium nitrite 7632-00-0	= 85 mg/kg ( Rat )	-	= 5.5 mg/L ( Rat ) 4 h
TSRN1860	= 2660 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 0.16 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** No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium nitrite 7632-00-0	-	Group 2A	-	X
TSRN1860	-	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** 1.4% 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)** 770 mg/kg  
**ATEmix (inhalation-dust/mist)** 50 mg/l

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

1.4% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
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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	-
TSRN1860	-	1020: 72 h Carassius auratus mg/L LC50 flow-through	115 - 153: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
Sodium nitrite 7632-00-0	-3.7
TSRN1860	-0.757

**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
TSRN1860	Toxic

**14. TRANSPORT INFORMATION****DOT**

Not regulated

**15. REGULATORY INFORMATION****International Inventories**TSCA  
DSL/NDSLComplies  
Complies

<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	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

**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**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**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

**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

**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

**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**