

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : Thoro-Flush  
Product code : 468-9110-16 & 468-9112-16

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Coolant System Cleaner  
Recommended use : Intended for general public

#### 1.4. Supplier's details

##### Manufacturer

Ironite Products Inc.  
2525 18th Street SW, Suite D  
Cedar Rapids, Iowa 52404  
T (319) 377-9421 or 1-800-553-5953  
[service@ironite.com](mailto:service@ironite.com)

#### 1.5. Emergency phone number

Emergency number : 1-800-553-5953 8am-4pm CST(GMT - 6)

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin corrosion/irritation, Category 2	Causes skin irritation.
Serious eye damage/eye irritation, Category 1	Causes serious eye damage.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation.

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Causes skin irritation  
Causes serious eye damage  
May cause respiratory irritation

Precautionary statements (GHS US) :

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Avoid breathing dust, fume, gas, mist, vapors, spray.  
Wash hands, forearms and face thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves  
If on skin: Wash with plenty of water.

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Take off contaminated clothing and wash it before reuse.  
If skin irritation occurs: Get medical advice or attention.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center or doctor if you feel unwell.  
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.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

Not applicable

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Trisodium phosphate	CAS-No.: 7601-54-9	Trade Secret
Sodium salt	CAS-No.: Trade Secret	Trade Secret

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : 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.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.  
Unsuitable extinguishing media : None known.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Metal oxides. Irritating vapors.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

#### For non-emergency personnel

No additional information available

#### For emergency responders

Environmental precautions : Prevent entry to sewers and public waters.

### 6.2. Methods and materials for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generating dust. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Good housekeeping is important to prevent accumulation of dust.

Hygiene measures : Take off contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

### 7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Store locked up. Do not store in unlabelled containers.

Specific end uses : Not available.

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### SECTION 8 Exposure controls/personal protection

#### 8.1. Control parameters

##### Trisodium phosphate (7601-54-9)

##### USA - AIHA - Occupational Exposure Limits

WEEL STEL	5 mg/m <sup>3</sup> (15-min. STEL)
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#### 8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
Environmental exposure controls	: Avoid release to the environment.

#### 8.3. Individual protection measures, such as personal protective equipment

##### Hand protection:

Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

##### Eye protection:

Wear eye/face protection

##### Skin and body protection:

Wear suitable protective clothing

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

##### Other information:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

### SECTION 9 Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder. Granules.
Color	: Red
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.5 g/cm <sup>3</sup>
Solubility	: Easily soluble in the following materials: cold water and hot water.
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available

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Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

Trisodium phosphate	
Particle characteristics	No data available

Sodium salt	
Boiling point	(decomposes)
Particle characteristics	No data available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content : 0 % (w/w)

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Heat. Incompatible materials.

### 10.5. Incompatible materials

Oxidizing materials. Acids.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Metal oxides.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Trisodium phosphate (7601-54-9)	
LD50 oral rat	> 2000 mg/kg (Source: ECHA)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LD50 dermal rabbit	> 300 mg/kg (Source: NLM_CIP)

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Trisodium phosphate (7601-54-9)	
LC50 inhalation rat	> 2.16 mg/l (Exposure time: 1 h Source: IUCLID)

Sodium salt (Trade Secret)	
LD50 oral rat	4090 mg/kg (Source: NLM_HSDB)
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:EPA 16 CFR 1500.40

Skin corrosion/irritation : Causes skin irritation.

Trisodium phosphate (7601-54-9)	
pH	12 (conc: 1 % (solution))

Sodium salt (Trade Secret)	
pH	11.5 (conc: 1 % (aqueous solution))

Serious eye damage/irritation : Causes serious eye damage.

Trisodium phosphate (7601-54-9)	
pH	12 (conc: 1 % (solution))

Sodium salt (Trade Secret)	
pH	11.5 (conc: 1 % (aqueous solution))

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

Trisodium phosphate (7601-54-9)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Trisodium phosphate (7601-54-9)	
NOAEL (subchronic,oral,animal/male,90 days)	322.88 mg/kg body weight Animal: dog, Animal sex: male
NOAEL (subchronic,oral,animal/female,90 days)	492.77 mg/kg body weight Animal: dog, Animal sex: female

Aspiration hazard : Not classified

Thoro-Flush	
Viscosity, kinematic	No data available

Trisodium phosphate (7601-54-9)	
Viscosity, kinematic	No data available

Sodium salt (Trade Secret)	
Viscosity, kinematic	No data available

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

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Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

### SECTION 12 Ecological information

#### 12.1. Ecotoxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Trisodium phosphate (7601-54-9)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i> )
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )

Sodium salt (Trade Secret)	
LC50 - Fish [1]	300 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static] Source: EPA)
EC50 - Crustacea [1]	265 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i> )
LC50 - Fish [2]	310 – 1220 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static] Source: EPA)
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): <i>Ceriodaphnia</i> sp.

#### 12.2. Persistence and degradability

Thoro-Flush	
Persistence and degradability	Not established.

Trisodium phosphate (7601-54-9)	
Persistence and degradability	Rapidly degradable

Sodium salt (Trade Secret)	
Persistence and degradability	Rapidly degradable

#### 12.3. Bioaccumulative potential

Thoro-Flush	
Bioaccumulative potential	Not established.

Sodium salt (Trade Secret)	
BCF - Fish [1]	(no bioaccumulation)

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

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Other information : No other effects known.

### SECTION 13 Disposal considerations

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimized wherever possible.

### SECTION 14 Transport information

In accordance with DOT

#### 14.1. UN number

UN-No. (DOT) : Not regulated

#### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated

#### 14.3. Transport hazard class(es)

##### DOT

Transport hazard class(es) (DOT) : Not regulated

#### 14.4. Packing group

Packing group (DOT) : Not regulated

#### 14.5. Environmental hazards

Other information : No supplementary information available.

#### 14.6. Transport in bulk

Not applicable

#### 14.7. Special precautions for user

Not applicable

### SECTION 15 Regulatory information

#### 15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

#### 15.2. International regulations

No additional information available

#### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16 Other information

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Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



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Section	Changed item	Comments	Version
SDS update	SDS update	Modified	V3.0

Safety Data Sheet (SDS), USA

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