



**Be Right™**

# SAFETY DATA SHEET

Issue Date 11-Apr-2016

Revision Date 11-Oct-2016

Version 4

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## 1. IDENTIFICATION

### Product identifier

**Product Name** Ammonia HR TNT Reagent A

### Other means of identification

**Product Code(s)** TNT832A

**Safety data sheet number** M01878

**UN/ID no** UN3077

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

**Recommended Use** Laboratory reagent. Determination of ammonium nitrogen.

**Uses advised against** None.

**Restrictions on use** None.

### Details of the supplier of the safety data sheet

#### Manufacturer Address

Hach Company  
P.O.Box 389 Loveland, CO 80539 USA  
(970) 669-3050

#### Emergency telephone number

(303) 623-5716 - 24 Hour Service (515)232-2533 - 8am - 4pm CST

## 2. HAZARDS IDENTIFICATION

### Classification

#### **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 2

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

**Signal word** - Warning

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**Hazard statements**

H302 - Harmful if swallowed  
H319 - Causes serious eye irritation  
EUH031 - Contact with acids liberates toxic gas

**Precautionary statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Information**

Causes mild skin irritation  
Toxic to aquatic life with long lasting effects  
Toxic to aquatic life

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

Percent ranges are used where confidential product information is applicable.

Chemical Name	CAS No	Percent Range	HMRIC #
Sodium nitroferricyanide	14402-89-2	7 - 13%	-
Dichloroisocyanuric acid, sodium salt	2893-78-9	7 - 13%	-

## 4. FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	IF IN EYES: Flush eyes for at least 15 minutes. May cause skin irritation.
<b>Eye contact</b>	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.
<b>Skin contact</b>	For minor skin contact, avoid spreading material on unaffected skin. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Remove and isolate contaminated clothing and shoes. Call a POISON CENTER or doctor if you feel unwell. If skin irritation persists, call a physician.
<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Remove from exposure, lie down. Call a POISON CENTER or doctor/physician if you feel unwell. Do not induce vomiting without medical advice.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

### Most important symptoms and effects, both acute and delayed

**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION.

### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Carbon dioxide. Dry chemical. Water.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

### Flammable properties

During a fire, irritating and highly toxic gases may be generated by thermal decomposition.

### Specific hazards arising from the chemical

None reported.

### **Hazardous combustion products**

Chlorides. Sodium monoxide. Nitrogen oxides. Carbon monoxide, Carbon dioxide. Cyanide compounds.

### Protective equipment and precautions for firefighters

In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.

### Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus In the event of fire and/or explosion do not breathe fumes

## 6. ACCIDENTAL RELEASE MEASURES

### **U.S. Notice**

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

**EC Notice** Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**WHMIS Notice** Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Evacuate personnel to safe areas. Do not touch or walk through spilled material. Ventilate affected area. Use personal protective equipment as required.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Dispose of in accordance with local, state and federal regulations or laws.

**Emergency Response Guide Number** Not applicable

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

**Flammability class** Not applicable

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium nitroferrocyanide 7 - 13%	TWA: 1 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup>	IDLH: 25 mg/m <sup>3</sup> CN TWA: 1 mg/m <sup>3</sup> Fe

		(vacated) TWA: 5 mg/m <sup>3</sup> *	
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Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL	New Foundland & Labrador OEL
Sodium nitroferricyanide 7 - 13%	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>

Chemical Name	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL	Ontario TWA	Prince Edward Island OEL
Sodium nitroferricyanide 7 - 13%	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>

Chemical Name	Quebec OEL	Saskatchewan OEL	Yukon OEL
Sodium nitroferricyanide 7 - 13%	TWA: 1.0 mg/m <sup>3</sup> Ceiling: 10 ppm Ceiling: 11 mg/m <sup>3</sup> SKN*	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> STEL: 5 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> SKN*

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Legend** See section 16 for terms and abbreviations

**Appropriate engineering controls**

**Engineering Controls** Showers  
 Eyewash stations  
 Ventilation systems

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

**Eye/face protection** Wear tight sealing safety goggles and/or face protection shield. Avoid contact with eyes.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear suitable gloves and eye/face protection. Wash face, hands and any exposed skin thoroughly after handling. Regular cleaning of equipment, work area and clothing is recommended. Handle in accordance with good industrial hygiene and safety practice. Avoid prolonged or repeated contact with skin. Take off all contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs.

**Environmental exposure controls**

Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

**Physical state** Solid

**Gas Under Pressure** Not classified according to GHS criteria

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**Appearance** pellets

**Color** white

**Odor** None

**Odor threshold** No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	No data available	
<b>pH</b>	7	5% Solution
<b>Melting point/freezing point</b>	No data available	
<b>Boiling point / boiling range</b>	No data available	
<b>Evaporation rate</b>	Not applicable	
<b>Vapor pressure</b>	Not applicable	
<b>Vapor density (air = 1)</b>	Not applicable	
<b>Specific gravity (water = 1 / air = 1)</b>	No data available	
<b>Partition Coefficient (n-octanol/water)</b>	No data available	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Dynamic viscosity</b>	Not applicable	
<b>Kinematic viscosity</b>	Not applicable	

#### Solubility(ies)

##### **Water solubility**

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	160000 mg/L	20 °C / 68 °F

##### **Solubility in other solvents**

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
None reported	No information available	No data available	No information available

#### Other Information

<b>Metal Corrosivity</b>	Not classified as corrosive to metal according to GHS criteria
<b>Steel Corrosion Rate</b>	Not applicable
<b>Aluminum Corrosion Rate</b>	Not applicable
<b>Volatile Organic Compounds (VOC) Content</b>	Not applicable.
<b>Bulk density</b>	No data available
<b>Explosive properties</b>	Not classified according to GHS criteria.

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<b>Explosion data</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Flammable properties</b>	During a fire, irritating and highly toxic gases may be generated by thermal decomposition.
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No data available
<b>Lower flammability limit:</b>	No data available
<b>Flash point</b>	Not applicable
<b>Method</b>	No information available
<b>Oxidizing properties</b>	Not classified according to GHS criteria.
<b>Reactivity properties</b>	Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.

## 10. STABILITY AND REACTIVITY

### **Reactivity properties**

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

### **Chemical stability**

Stable under recommended storage conditions.

### **Special dangers of the product**

None reported

### **Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization**      Hazardous polymerization does not occur.

### **Conditions to avoid**

Extremes of temperature and direct sunlight. Incompatible materials.

### **Incompatible materials**

Strong oxidizing agents. Strong acids. Strong bases.

### **Hazardous Decomposition Products**

Cyanide. Nitrogen oxides. Sodium oxides. Carbon dioxide. Carbon monoxide. Chlorides.

### **Explosive properties**

Not classified according to GHS criteria.

**Upper explosion limit**      No data available

**Lower explosion limit**      No data available

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**Autoignition temperature**

No data available

**Sensitivity to Static Discharge**

None reported

**Sensitivity to Mechanical Impact**

None reported

**11. TOXICOLOGICAL INFORMATION**

**NIOSH (RTECS) Number** None reported

**Information on Likely Routes of Exposure**

<b>Product Information</b>	Causes mild skin irritation. Causes serious eye irritation. Harmful if swallowed.
<b>Inhalation</b>	No known effect based on information supplied.
<b>Eye contact</b>	Contact with eyes may cause irritation. Severely irritating to eyes.
<b>Skin contact</b>	Causes mild skin irritation.
<b>Ingestion</b>	Harmful if swallowed.
<b>Aggravated Medical Conditions</b>	Skin disorders. Eye disorders.
<b>Toxicologically synergistic products</b>	None known.
<b>Toxicokinetics, metabolism and distribution</b>	No information available.

**Product Acute Toxicity Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (dermal)</b>	99,305.00 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	124.10 mg/L

**Ingredient Acute Toxicity Data**

**Oral Exposure Route**

If available, see data below

<b>Chemical Name</b>	<b>Endpoint type</b>	<b>Reported dose</b>	<b>Exposure time</b>	<b>Toxicological effects</b>	<b>Key literature references and sources for data</b>
Sodium nitroferricyanide (7 - 13%) CAS#: 14402-89-2	Rat LD <sub>50</sub>	100 mg/kg	None reported	None reported	LOLI
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Rat LD <sub>50</sub>	750 mg/kg	None reported	None reported	ERMA (New Zealand's Environmental Risk Management Authority) HSDB (Hazardous Substances Data Bank)



**Dermal Exposure Route**

If available, see data below

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Rabbit LD <sub>50</sub>	> 10000 mg/kg	None reported	None reported	No information available

**Inhalation (Dust/Mist) Exposure Route**

If available, see data below

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Rat LC <sub>50</sub>	12.5 mg/L	4 hours	None reported	IUCLID (The International Uniform Chemical Information Database)

**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

**Product Skin Corrosion/Irritation Data**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

If available, see data below

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Standard Draize Test	Rabbit	500 mg	24 hours	Mild skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

**Product Serious Eye Damage/Eye Irritation Data**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

If available, see data below

Chemical Name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Rinse Test	Rabbit	None reported	None reported	Eye irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

**Sensitization Information**

**Product Sensitization Data**

**Skin Sensitization Exposure Route**

No data available.

**Respiratory Sensitization Exposure Route**

No data available.

**Ingredient Sensitization Data**

**Skin Sensitization Exposure Route**

No data available.

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**Respiratory Sensitization Exposure Route**

No data available.

**Chronic Toxicity Information**

**Product Repeat Dose Toxicity Data**

**Oral Exposure Route**

No data available.

**Dermal Exposure Route**

No data available.

**Inhalation (Dust/Mist) Exposure Route**

No data available.

**Inhalation (Vapor) Exposure Route**

No data available.

**Inhalation (Gas) Exposure Route**

No data available.

**Ingredient Repeat Dose Toxicity Data**

**Oral Exposure Route**

No data available

**Dermal Exposure Route**

No data available

**Inhalation (Dust/Mist) Exposure Route**

No data available

**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

<b>Chemical Name</b>	<b>CAS No</b>	<b>ACGIH</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>
Sodium nitroferrocyanide	14402-89-2	-	-	-	-
Dichloroisocyanuric acid, sodium salt	2893-78-9	-	-	-	-

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Does not apply
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA (Occupational Safety and Health Administration of the US Department of Labor)</b>	Does not apply

**Product Carcinogenicity Data**

No data available

**Oral Exposure Route**

No data available

**Dermal Exposure Route**

No data available

**Inhalation (Dust/Mist) Exposure Route**

No data available

**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

**Ingredient Carcinogenicity Data**

**Oral Exposure Route**

No data available

**Dermal Exposure Route**

No data available

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**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Product Germ Cell Mutagenicity *invitro* Data**  
 No data available.

**Ingredient Germ Cell Mutagenicity *invitro* Data** If available, see data below

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Ingredient Germ Cell Mutagenicity *invivo* Data**

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Oral Exposure Route** No data available

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

**Inhalation (Vapor) Exposure Route** No data available

**Inhalation (Gas) Exposure Route** No data available

**Ingredient Reproductive Toxicity Data**

**Oral Exposure Route** If available, see data below

Chemical Name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Mouse TD <sub>Lo</sub>	4000 mg/kg	9 days	<b>Effects on Newborn</b> Growth statistics (e.g. % reduced weight gain) Physical <b>Specific Developmental Abnormalities</b> Musculoskeletal system	RTECS (Registry of Toxic Effects of Chemical Substances)

**Dermal Exposure Route** No data available

**Inhalation (Dust/Mist) Exposure Route** No data available

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**Inhalation (Vapor) Exposure Route**

No data available

**Inhalation (Gas) Exposure Route**

No data available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

### Product Ecological Data

#### **Aquatic toxicity**

**Fish**

No data available

**Crustacea**

No data available

**Algae**

No data available

#### **Terrestrial toxicity**

**Soil**

No data available

**Vertebrates**

No data available

**Invertebrates**

No data available

### Ingredient Ecological Data

#### **Aquatic toxicity**

**Fish**

If available, see ingredient data below

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	0.25 mg/L	PEEN (Pan European Ecological Network)

**Crustacea**

If available, see ingredient data below

Chemical Name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	48 Hours	<i>Daphnia magna</i>	LC <sub>50</sub>	0.28 mg/L	ECHA (The European Chemicals Agency) PEEN (Pan European Ecological Network)

**Algae**

If available, see ingredient data below

#### Terrestrial toxicity

**Soil**

No data available

**Vertebrates**

No data available

**Invertebrates**

No data available

#### Other Information

Canadian Environmental Protection Act (CEPA) - Domestic Substances List (DSL):  
Environmentally Hazardous Substances Categorizations

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**Persistence and degradability**

None known.

**Product Biodegradability Data**

If available, see ingredient data below.

**Ingredient Biodegradability Data**

Test data reported below

Chemical Name	Test method	Biodegradation	Exposure time	Results
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	None reported	None reported	None reported	Readily biodegradable

**Bioaccumulation**

None known.

**Product Bioaccumulation Data**

No data available.

**Ingredient Bioaccumulation Data**

No data available

**Additional information**

**Product Information**

No data available

**Partition Coefficient (n-octanol/water)**

No data available

**Ingredient Information**

Chemical Name	Partition Coefficient (n-octanol/water)	Method
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	$\log K_{ow} = .?$	Estimation through KOWWIN v1.68 part of the Estimation Programs Interface (EPI) Suite™

**Mobility**

Mobility in soil: High mobility. If available, see ingredient data below.

**Product Information**

No data available

**Soil Organic Carbon-Water Partition Coefficient**

No data available

**Ingredient Information**

**Additional information**

**Water solubility**

**Product Information**

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	160000 mg/L	20 °C / 68 °F

**Ingredient Information**

Chemical Name	Water solubility classification	Water solubility	Water solubility temperature °C	Water solubility temperature °F
Sodium nitroferricyanide CAS#: 14402-89-2	Soluble	> 1000 mg/L	25 °C	77 °F
Dichloroisocyanuric acid, sodium salt CAS#: 2893-78-9	Completely soluble	227000 mg/L	25 °C	77 °F

**Other adverse effects**

No information available.

Chemical Name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disrupters - Evaluated Substances	Endocrine disrupting potential
Sodium nitroferricyanide (7 - 13%) CAS#: 14402-89-2	Group III Chemical	-	-
Dichloroisocyanuric acid, sodium salt (7 - 13%) CAS#: 2893-78-9	Group III Chemical	-	-

### 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**

Working in a well-ventilated area. Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state, or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P.A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste in countries other than the US. Improper disposal or reuse of this container may be dangerous and illegal. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

**Special instructions for disposal**

Dispose of material in an E.P.A. approved hazardous waste facility.

### 14. TRANSPORT INFORMATION

**U.S. DOT**

**UN/ID no** UN3077  
**Proper shipping name** Environmentally hazardous substances, solid, n.o.s.  
**DOT Technical Name** (Sodium dichloroisocyanurate mixture)  
**Hazard Class** 9  
**Packing Group** III  
**Special Provisions** Contact with acids forms toxic fumes.  
**Marine pollutant** This product contains a chemical which is listed as a marine pollutant according to DOT.

**TDG**

**UN/ID no** UN3077  
**Hazard Class** 9  
**Packing Group** III  
**Marine pollutant** This product contains a chemical which is listed as a marine pollutant according to TDG.

**IATA**

**UN/ID no** UN3077

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**Proper shipping name** Environmentally hazardous substances, solid, n.o.s.  
**IATA Technical Name** (Sodium dichloroisocyanurate mixture)  
**Hazard Class** 9  
**Packing Group** III

**IMDG**

**UN/ID no** UN3077  
**IMDG Technical Name** (Sodium dichloroisocyanurate mixture)  
**Hazard Class** 9  
**Packing Group** III  
**Marine pollutant** This material meets the definition of a marine pollutant

**Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following: UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III. If the item is not regulated, the Chemical Kit classification does not apply.

**15. REGULATORY INFORMATION**

**National Inventories**

**TSCA** Complies  
**DSL/NDSL** Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

**EINECS/ELINCS** Complies  
**ENCS** Does not comply  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**TCSI** Complies  
**AICS** Complies  
**NZIoC** Does not comply

**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  
**TCSI** - Taiwan Chemical Substances Inventory  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or 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 nitroferricyanide (CAS #: 14402-89-2)	1.0

**SARA 311/312 Hazard Categories**

**Acute health hazard** Yes  
**Chronic Health Hazard** No  
**Fire hazard** No

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**Sudden release of pressure hazard**  
**Reactive Hazard**

No  
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 nitroferricyanide 14402-89-2	-	X	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

**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 nitroferricyanide 14402-89-2	X	-	X
Dichloroisocyanuric acid, sodium salt 2893-78-9	X	-	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**Special Comments**

None

**Additional information**

**Global Automotive Declarable Substance List (GADSL)**

Chemical Name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thresholds
Dichloroisocyanuric acid, sodium salt 2893-78-9	Declarable Substance (LR) Prohibited Substance (LR)	0.0 %

**NFPA and HMIS Classifications**

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 1	Flammability - 0	Physical Hazards - 0	Personal protection - X - See section 8 for more



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**Key or legend to abbreviations and acronyms used in the safety data sheet**

NIOSH IDLH *Immediately Dangerous to Life or Health*  
ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)  
NDF *no data*

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

**Issue Date** 11-Apr-2016

**Revision Date** 11-Oct-2016

**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**