



Material Safety Data Sheet Sodium nitroprusside, ACS

Section 1 - Chemical Product and Company Identification

MSDS Name:

Sodium nitroprusside, ACS

Catalog Numbers:

Q09642□□

Synonyms:

Nipride dihydrate, disodium nitroprusside dihydrate, sodium nitroferricyanide dihydrate, sodium nitrosylpentacyanoferrate (III) dihydrate.

Company Identification:

Qorpak□□

1195 Washington Pike□□

Bridgeville, PA 15017□□

Company Phone Number:

(412) 257-3100

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
13755-38-9	Sodium nitroprusside dihydrate	100%

Section 3 - Hazards Identification

Emergency Overview

Appearance: red crystals

Warning! Contact with acid liberates cyanide gas. May cause respiratory tract irritation. Hygroscopic (absorbs moisture from the air.) Harmful if swallowed, inhaled, or absorbed through the skin. May cause eye and skin irritation.

Target Organs: Blood, cardiovascular system.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May be metabolized to cyanide which, in turn, acts by inhibiting cytochrome oxidase impairing cellular respiration.

Ingestion:

Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness, and possible death. Ingestion may result in symptoms similar to cyanide poisoning which is characterized by asphyxiation. Large doses of cyanide may result in sudden loss of consciousness and prompt death; small doses will prolong the above symptoms 1 to 2 hours.



Material Safety Data Sheet Sodium nitroprusside, ACS

Inhalation:

May cause irritation of the respiratory tract. May be metabolized to cyanide which, in turn, acts by inhibiting cytochrome oxidase impairing cellular respiration. Sodium nitroprusside dihydrate releases nitric oxide in vivo, induces vasodilation, and inhibits platelet aggregation.

Chronic:

May be metabolized to cyanide which, in turn, acts by inhibiting cytochrome oxidase impairing cellular respiration. Chronic exposure to cyanide solutions may lead to the development of a "cyanide" rash, characterized by itching, and by macular, papular, and vesicular eruptions, and may be accompanied by secondary infections. Exposure to small amounts of cyanide compounds over long periods of time is reported to cause loss of appetite, headache, weakness, nausea, dizziness, and symptoms of irritation of the upper respiratory tract and eyes.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.

Ingestion:

Do not induce vomiting. If victim is conscious, give 2-4 glasses of water or milk. Get medical aid at once.

Inhalation:

Give artificial respiration if necessary. Move victim to fresh air. Keep victim warm and at rest. Get medical aid at once.

Notes to Physician:

Treat symptomatically and supportively.

Antidote:

Always have a cyanide antidote kit on hand when working with cyanide compounds. Get medical advice to use.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

Health-2; flammability-0; reactivity-1

Explosion Limits:

Lower: n/a Upper: n/a



Material Safety Data Sheet Sodium nitroprusside, ACS

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately. Avoid creating airborne particles. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use only in a well-ventilated area. Do not get on skin or in eyes. Do not ingest or inhale. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store tightly closed at room temperature. Protect from heat and incompatibles. Do not expose to air. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Sodium nitroferricyanide dihydrate	1 mg/m ³ TWA (as Fe)	1 mg/m ³ TWA (as Fe)	none listed

OSHA Vacated PELs:

Sodium nitroferricyanide dihydrate: 1 mg/m³ TWA (as Fe).

Personal Protective Equipment**Eyes:**

Do not wear contact lenses when working with chemicals. Wear appropriate protective eyeglasses or chemical safety goggles as described in 29 CFR 1910.133.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 and ANSI Z88.2. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.



Material Safety Data Sheet Sodium nitroprusside, ACS

Section 9 - Physical and Chemical Properties

Physical State:	Crystals
Color:	Red
Odor:	Practically odorless
pH:	Not available
Vapor Pressure:	7.3 mm Hg @ 25°C
Vapor Density:	Not available
Evaporation Rate:	Negligible
Viscosity:	Not available
Boiling Point:	Not available
Freezing/Melting Point:	Not available
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	1.72 g/cm ³
Molecular Formula:	C ₅ FeN ₆ O ₂ .Na ₂ .2H ₂ O
Molecular Weight:	215.89

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal storage and handling conditions.

Conditions to Avoid:

Dust generation, excess heat, exposure to water or moist air

Incompatibilities with Other Materials:

Strong oxidizing agents, strong acids.

Hazardous Decomposition Products:

Hydrogen cyanide, nitrogen oxides, irritating and toxic fumes and gases, sodium oxide.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 13755-38-9: LJ8925000

LD50/LC50:

Not available.

CAS# 13755-38-9 (anhydrous):

Oral, mouse: LD50 = 43 mg/Kg;

Oral, rat: LD50 = 300 mg/Kg;

Skin, rat: LD50 = >2 g/Kg

Carcinogenicity:

CAS# 13755-38-9: Not listed by ACGIH, IARC, NTP, or CA Proposition 65.

Epidemiology:

No information available.



Material Safety Data Sheet Sodium nitroprusside, ACS

Teratogenicity:

Nitroprusside was not teratogenic when tested in rats. Use of nitroprusside during human pregnancy has been described, both for hypertensive emergencies and to induce hypotension, as in aneurysm surgery. No fetal problems have been attributed to drug therapy. Because nitroprusside can also be a source of cyanide, there has been concern that maternal therapy might produce cyanide toxicity in the offspring.

Reproductive:

No information available.

Mutagenicity:

No information available.

Neurotoxicity:

No information available.

Other Studies:

See actual entry in RTECS for complete information

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: No information found.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal**TSCA:**

CAS# 13755-38-9 is not listed on the TSCA inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40 CFR 720.3(u)(2)).

CAS# 14402-89-2 (anhydrous) is listed on the TSCA inventory. Does not have a Significant New Use Rule.

SARA Reportable Quantities (RQ):

CAS# 13755-38-9 does not have an RQ.

CERCLA/SARA Section 313:

CAS# 13755-38-9 is not reportable under Section 313.

OSHA - Highly Hazardous:

Not considered highly hazardous by OSHA.



Material Safety Data Sheet Sodium nitroprusside, ACS

US State

State Right to Know:

CAS# 13755-38-9 is listed on the following state right to know lists: California, Pennsylvania, and Minnesota.

California Regulations:

Not listed.

European/International Regulations

Canadian DSL/NDSL:

CAS# 13755-38-9 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 13755-38-9 is not listed on the Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 1, 2006

Revision Date: None

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