



## **Sodium Cyanate CAS No. 917-61-3**

### **SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Company: **Sparchem**

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MSDS Name: Sodium Cyanate, 90%, Reminder Sodium Carbonate

Synonyms/Trade Names: Cyansan, Sodium Cyanate, Cyanic Acid Sodium Salt, Isocyanate

### **SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS**

CAS No : 917-61-3

Chemical Name : Sodium Cyanate

Purity (NaOCN) : 90% min

Na<sub>2</sub>CO<sub>3</sub> : 10% max

NaCl : 0.4% max

NaCN : None

Fe : 20 ppm max

EC No : 213-030-6

Hazard Symbols in Europe : XN

Risk Phrases : 22

Major Uses : Wide industrial uses as an intermediate in the manufacture of insecticides, herbicides, dyestuffs, pharmaceutical, heat treatment salts for metals and photographic initiators.

### **SECTION 3 - HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

Appearance: off-white.

Caution! The toxicological properties of this material have not been fully investigated. May be harmful if swallowed. May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Target Organs: None known.

#### **POTENTIAL HEALTH EFFECTS**

Eye: May cause eye irritation. The toxicological properties of this material have not been fully investigated.

Skin:

May cause skin irritation. The toxicological properties of this material have not been fully investigated.

Ingestion:

May cause irritation of the digestive tract. Human fatalities have reported from acute poisoning. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:

No information found.

#### **SECTION 4 - FIRST AID MEASURES**

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Never give anything by mouth to an unconscious person. Get medical. Do NOT induce vomiting. If conscious and alert, rinse mouth and 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Treat symptomatically and supportively.

#### **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:

Use agent most appropriate to extinguish fire. Use water spray, drychemical, carbon dioxide, or appropriate foam.

Auto-ignition Temperature : Not available.

Explosion Limits, upper : Not available.

NFPA Rating: (estimated) Health : 1; Flammability: 0; Reactivity: 0

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

## **SECTION 7 - HANDLING and STORAGE**

Handling:

Sodium Cyanate bags should be stacked safely in covered storage with clear access around them for handling equipment, inspection and for fire fighting purposes. The stacking pattern used should be designed to bond the bags together to enhance the stability.

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

The storage area should be dry and well-ventilated area away from incompatibles substances. Acids should not be stored in the same area. The material will react with most common inorganic acids to form ammonia and carbon monoxide. Repeated lifting of bags may cause injury to operators. Lifting should be reduced to the minimum by good plant design and the use of mechanical devices. If it is not possible to eliminate lifting, operators should be given training in safe manual handling techniques.

## **SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

ACGIH : none listed

NIOSH : none listed

OSHA - Final PELs: none listed

Sodium Cyanate:

No OSHA Vacated PELs are listed for this chemical. Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection

regulations in 29 CFR 1910.133 or European Standard EN166.

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 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State : Crystalline powder

Appearance : off-white crystal

Odor : odorless

pH : Not available.

Vapor Pressure : Not available.

Vapor Density : Not available.

Evaporation Rate : Not available.

Viscosity : Not available.

Boiling Point : Not available.

Freezing/Melting Point : 550 deg. C (1022 deg. F)

Decomposition Temperature:

Solubility in water : insoluble in ether

Specific Gravity/Density : 1.937 (20 deg. C)

Molecular Formula : NaOCN

Molecular Weight : 65.5

## **SECTION 10 - STABILITY AND REACTIVITY**

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, dust generation, excess heat, strong oxidants.

Incompatibilities with Other Materials: **MSDS R.4**

Oxidizing agents.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization:

Has not been reported.

## **SECTION 11 - TOXICOLOGICAL INFORMATION**

RTECS# : CAS # 917-61-3

LD50/LC50 : Oral, rat: LD50 = 1500 mg/kg.  
Carcinogenicity : Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.  
Epidemiology : No information available.  
Teratogenicity : No information available.  
Reproductive Effects : No information available.  
Neurotoxicity : information available.  
Mutagenicity : No information available.  
Other Studies : No data available.

## **SECTION 12 - ECOLOGICAL INFORMATION**

No information available

## **SECTION 13 - DISPOSAL CONSIDERATIONS**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.  
US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed.

## **SECTION 14 - TRANSPORT INFORMATION**

US DOT : No information available  
Canadian TDG : No information available.

## **SECTION 15 - REGULATORY INFORMATION**

US FEDERAL  
TSCA

CAS# 917-61-3 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Sodium Cyanate is not present on state lists from CA, PA, MN, MA, FL, or NJ in USA.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

EC Index No : 011-006-00-8

Harmful

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S2 Keep out of the reach of children

S 24/25 Avoid contact with skin and eyes.

S 61 Avoid release to the environment. Refer to special instruction/safety data sheets.

WGK (Water Danger/Protection)

CAS# 917-61-3: 2

United Kingdom Occupational Exposure Limits

Canada

CAS# 917-61-3 is listed on Canada's NDSL List.

This product has a WHMIS classification of D2B.

CAS# 917-61-3 is not listed on Canada's Ingredient Disclosure

List.

Exposure Limits

**SECTION 16 - ADDITIONAL INFORMATION**

Creation Date: 6/01/1996

Revision #1 Date: 2/24/1997

Revision #2 Date: 5/01/2001

Revision #3 Date: 8/01/2002

Revision #4 Date: 12/01/2004

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