Infosafe No™	1CHFF	Issue Date : August 2018	RE-ISSUED by CHEMSUPP

Product Name : **SODIUM CYANIDE**

Classified as hazardous

1. Identification

GHS Product Identifier SODIUM CYANIDE

Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

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Recommended use of the chemical and restrictions on use Used for extraction of gold, silver and other precious metals from ores, electroplating, heat treatment of metals (case-hardening), making hydrogen cyanide, insecticide (entomology), cleaning metals, fumigation, manufacture of dyes and pigments, nylon intermediates, chelating compounds, ore floatation and laboratory reagent.

Other Names

Name	Product Code
SODIUM CYANIDE Tablets TG	ST595
SODIUM CYANIDE Granular LR	SL021

Additional Information Not to be available except to authorised or licensed persons.

Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture
Hazardous to the Aquatic Environment - Acute Hazard: Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
Acute Toxicity - Dermal: Category 1
Acute Toxicity - Inhalation: Category 2
Acute Toxicity - Oral: Category 2
Skin Corrosion/Irritation: Category 2

Signal Word (s) DANGER

Hazard Statement (s)
H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H315 Causes skin irritation.
H410 Very toxic to aquatic life with long lasting effects.
AUH029 Contact with water liberates toxic gas
AUH032 Contact with acids liberates very toxic gas

Pictogram (s) Skull and crossbones, Environment


Precautionary statement – Prevention
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P263 Avoid contact during pregnancy/while nursing.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 Wear respiratory protection.

Precautionary statement – Response	P273 Avoid release to the environment. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P310 Immediately call a POISON CENTER or doctor/physician. P362 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician.
Precautionary statement – Storage	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical Characterization Solid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
Sodium cyanide	143-33-9	100 %		

4. First-aid measures

First Aid Measures Urgent hospital treatment is likely to be needed.
IN CASE OF CYANIDE POISONING, start first aid treatment immediately, then get medical attention. A cyanide antidote kit (amyl nitrite, sodium nitrite and sodium thiosulfate) should be available in any cyanide work area. First aid procedures in case of cyanide poisoning should be planned and practiced before beginning work with cyanides. Oxygen and amyl nitrite can be given by a first responder before medical help arrives. Allow victim to inhale amyl nitrite for 15-30 seconds per minute until sodium nitrite and sodium thiosulfate can be administered intravenously (see Advice to Doctor). A new amyl nitrite ampule should be used every 3 minutes. If conscious but symptoms (nausea, difficult breathing, dizziness, etc.) are evident, give oxygen. If consciousness is impaired (non-responsiveness, slurred speech, confusion, drowsiness) or the patient is unconscious but breathing, give oxygen and amyl nitrite by means of a respirator. If not breathing, give oxygen and amyl nitrite immediately by means of a positive pressure respirator (artificial respiration).

Inhalation SPEED IS ESSENTIAL, OBTAIN MEDICAL AID IMMEDIATELY. POISON material. Wear breathing apparatus. If swallowed or inhaled, remove from contaminated area. Administer antidote kit and oxygen per pre-planned instructions if symptoms occur. Keep patient warm and at rest. Oxygen should be administered. Apply artificial respiration if not breathing. Do not give direct mouth-to-mouth resuscitation. To protect rescuer, use air-viva, oxy-viva or one-way mask. Resuscitate in a well-ventilated area. Remove all contaminated clothing at the earliest opportunity, placing it in open air. Wash thoroughly before re-use. If oxygen is unavailable and the patient is conscious, a capsule of amyl nitrite may be broken onto a cloth and given to inhale for 15 - 30 seconds each 2 - 3 minutes until the capsule is exhausted. Up to 6 capsules may be used.

Ingestion SPEED IS ESSENTIAL. OBTAIN MEDICAL ATTENTION IMMEDIATELY. If ingested, antidote kit and oxygen should be administered as for inhalation. Do not give anything by mouth. Treat casualty as for inhalation. Do not induce vomiting as it could interfere with resuscitator use.

Skin Seek urgent medical assistance. Avoid direct contact with this chemical. Wear impervious protective gloves. Immediately wash affected areas with copious quantities of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Do not reuse contaminated shoes or leather goods. Administer antidote kit and oxygen per preplanned instructions if symptoms occur. Treat patient as for inhalation.

Eye contact Seek immediate medical assistance. Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Treat patient as for inhalation.

First Aid Facilities Maintain eyewash fountain and drench facilities in work area.
A cyanide antidote kit (amyl nitrite capsules/ampules, sodium nitrite and sodium thiosulfate; oxygen and associated apparatus - respirator, positive pressure respirator (artificial respiration)) should be available and may need to be added to first aid kits in any workplaces where cyanide is used.

Advice to Doctor Consult Poisons Information Centre.
If patient does not respond to amyl nitrite, inject intravenously with 10mL of a 3% solution of sodium nitrite at a rate of not more than 2.5 to 5 mL per minute. Once nitrite administration is complete, follow

	directly with 50 mL of a 25% solution of sodium thiosulfate at the same rate by the same route. Give victim oxygen and keep under observation. If exposure was severe, watch victim for 24-48 hours. If signs of cyanide poisoning persist or reappear, repeat nitrite and thiosulfate injections 1 hour later in 1/2 the original doses. Cyanocabalamin (B12), 1 mg intramuscularly, may speed recovery. The following alternative antidotes for cyanide poisoning may be available: Dicobalt edetate, 1.5% solution: for injection; 4-Dimethylaminophenol (4-DMAP), 5% solution: for injection; and Hydroxocobalamin, 40% solution: for intravenous injection. Moderate cyanide exposures need be treated only by supportive measures such as bed rest and oxygen.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

5. Fire-fighting measures

Hazards from Combustion Products	Very flammable and extremely toxic hydrogen cyanide (HCN), toxic and irritating nitrogen oxides, carbon monoxide, carbon dioxide, ammonia, sodium oxide and sodium hydroxide.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media.
Hazchem Code	2X
Decomposition Temp.	May decompose at 1500 °C. Decomposes in a fire.
Precautions in connection with Fire	Wear SCBA and acid-resistant chemical splash suit. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Personal Precautions	Evacuate the area of all non-essential personnel. Take off immediately all contaminated clothing. Avoid contact with skin, eyes, nose, mouth.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.
Clean-up Methods - Large Spillages	Seek expert advice on handling and disposal.
Environmental Precautions	Prevent from entering into drains, ditches, rivers or the sea.

7. Handling and storage

Precautions for Safe Handling	Never work alone in an area if HCN exposure is possible. Use the 'buddy' system. The second person should be in view and trained and equipped to execute a rescue. Avoid ingestion and inhalation of dust/vapour/spray mist. Avoid contact with eyes, skin or clothing. Avoid prolonged or repeated exposure. Prevent dust, vapour, or mist generation and accumulation. Keep containers tightly closed when not in use. Use dust-tight containers. Use only in a chemical fume hood. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Wash thoroughly after handling. Contaminated clothing should be removed and washed before re-use. Workers must not take contaminated clothing home. Workers must carefully follow good hygienic practices, and under no circumstances eat, drink or smoke while handling this material. Proper use and maintenance of protective equipment is essential. Workers using cyanide need preplacement and annual medical exams. Special training should be given to all persons with the potential for cyanide poisoning to provide immediate First Aid using oxygen and amyl nitrite. A cyanide antidote kit (amyl nitrite, sodium nitrite, and sodium thiosulfate) should be readily available in cyanide workplaces. The antidotes should be checked annually to ensure they are still within their shelf-lives. Identification of community hospital resources and emergency medical squads in order to equip and train them on handling cyanide emergencies is essential. Protect against physical damage. No hooks should be used in handling cyanide containers. Separate from incompatibles. Keep container dry. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
Conditions for safe storage, including any incompatabilities	Restrict access to locked storage area. Store in securely labelled, sealed or tightly closed, airtight containers, in a cool, dry, well-ventilated area, out of direct sunlight and away from incompatible materials. Avoid any dust buildup. Protect against physical damage and corrosion. Use corrosion-resistant structural materials and lighting and ventilation systems in the storage area. Store

	away from fire hazards, combustibles or flammables because subsequent fire fighting with water could lead to cyanide solution runoff. Do not store under sprinkler systems. Containers should be kept covered or in exhaust hood when not in use. Storage areas must be adequately ventilated to ensure that cyanide concentrations do not exceed the recommended workplace environmental limits. Outside or detached storage is preferred. Limit quantity of material in storage. Post warning signs when appropriate. Keep storage area separate from populated work areas. Inspect and monitor periodically for deficiencies such as damage or leaks. Water solutions of sodium cyanide should be monitored for pressure buildup of toxic and corrosive ammonia. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
Corrosiveness	Corrosive to aluminium, brass, alloy 400/405, and zinc. Not corrosive to 316SS, Steel, Titanium, Alloy 600, Alloy C276, Delrin, TFE/PFA, Buna-N, Neoprene and Viton.
Storage Regulations	Refer Australian Standard AS/NZS 4452:1997 'The storage and handling of toxic substances'.
Storage Temperatures	24 ºC Maximum.
Recommended Materials	316SS, Steel, Titanium, Alloy 600, Alloy C276, Delrin, TFE/PFA, Buna-N, Neoprene and Viton.
Unsuitable Materials	Aluminium, brass, alloy 400/405, and zinc.

8. Exposure controls/personal protection

Occupational exposure limit values	hese Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Other Exposure Information	A time weighted average (TWA) has been established for Cyanides (as CN) (Safe Work Australia) of 5 mg/m³. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. Note: Absorption through skin may be a significant source of exposure.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection. RESPIRATORY PROTECTION GUIDELINES - RECOMMENDATIONS FOR CYANIDE CONCENTRATIONS IN AIR: UP TO 25 mg/m³ (as CN): Supplied-Air Respirator (SAR); or Self-Contained Breathing Apparatus (SCBA). EMERGENCY OR PLANNED ENTRY IN UNKNOWN CONCENTRATION OR Immediately Dangerous to Life or Health (IDLH) CONDITIONS: Positive pressure, full-facepiece SCBA; or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA. ESCAPE: Gas mask with high-efficiency filter and canister to protect against cyanides; or escape-type SCBA. NOTE: The Immediately Dangerous to Life or Health (IDLH) concentration for cyanides is 25 mg/m³ (as CN). Recommendations apply to approved respirators. Air-purifying respirators do not protect against oxygen-deficient atmospheres. NOTE: In these recommendations the IDLH concentration is defined as the maximum concentration which would not cause any escape-impairing symptoms or irreversible health effects to a person exposed for 30 minutes if the respirator failed.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Excellent: Natural rubber gloves Neoprene gloves Butyl rubber gloves PVC gloves. Nitrile rubber gloves Viton rubber gloves. Excellent (solutions): NR latex, vinyl and nitrile. Good (solutions): Neoprene gloves.

Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals. RESISTANCE FOR PROTECTIVE CLOTHING: GOOD: Polyvinyl chloride Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	White deliquescent, granules, powder, flakes, crystals, lumps or eggs.
Odour	Faint almond-like odour. Odourless when perfectly dry, emits odour of hydrogen cyanide when damp.
Decomposition Temperature	May decompose at 1500 °C. Decomposes in a fire.
Melting Point	564 °C
Boiling Point	1496 °C
Solubility in Water	Very soluble (48 g/100 ml at 10 °C; 58 g/100 ml at 20 °C; 82 g/100 ml at 35 °C).
Solubility in Organic Solvents	Very soluble in liquid ammonia. Slightly soluble in ethyl alcohol, methyl alcohol, formamide, dimethylformamide, and furfural.
Specific Gravity	1.6
pH	Aqueous solutions are strongly alkaline (11.7 (100g/l, H2O)).
Vapour Pressure	0 mm at 20 °C; 1 mm Hg at 817 °C; 10 mm Hg at 983 °C.
Vapour Density (Air=1)	1.7. Vapour Density of Hydrogen Cyanide gas: 0.941.
Coefficient Water/Oil Distr.	Log P (o/w): 0.44
Odour Threshold	Odourless when dry. Slight odour of hydrogen cyanide(HCN) when damp. HCN smells like bitter almonds. HCN odour threshold: 0.2-5 ppm. Neither sodium cyanide nor hydrogen cyanide are detectable by odour or irritation at concentrations providing a significant margin of safety.
Viscosity	4 cP at 30 °C (26% aqueous solution).
Volatile Component	0 %vol @ 21 °C
Flammability	Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and highly toxic fumes.
Explosion Properties	Not considered an explosion hazard, but upon heating with chlorates or nitrites to 450 °C may cause an explosion. Fusion mixtures of metal cyanides with metal chlorates, perchlorates or nitrates causes a violent explosion. Sealed containers may rupture when heated.
Molecular Weight	49.01
Solubility in other solvents (kg/m3)	Solution readily dissolves gold and silver in presence of air
Other Information	Index of Refraction: 1.452.

10. Stability and reactivity

Chemical Stability	Stable under normal temperatures, pressures and conditions of storage and handling, if dry. Sensitive to moisture, hygroscopic. Air (carbon dioxide) and/or moisture will cause slow decomposition, releasing poisonous hydrogen cyanide gas. Aqueous solutions rapidly decompose on standing.
Conditions to Avoid	Heat, high temperatures, dust generation, exposure to moist air, moisture or water, and incompatible materials.

Incompatible Materials	Strong oxidising agents (e.g. nitrates, nitrites, peroxides, perchlorates and chlorates), acids and acid salts, alkali salts, reducing materials, fluorine, metals, aluminium, magnesium, food and feedstuffs, water or weak alkaline solutions, or products containing water, moisture, carbon dioxide/water.
Hazardous Decomposition Products	Very flammable and extremely toxic hydrogen cyanide (HCN), toxic and irritating nitrogen oxides, carbon monoxide, carbon dioxide, ammonia, sodium oxide and sodium hydroxide.
Possibility of hazardous reactions	Dangerous on contact with acids, acid salts, acid fumes, water or stream, producing immediate formation of highly toxic and flammable hydrogen cyanide (HCN) gas. May react slowly with water, moist air, moisture or carbon dioxide in ordinary air to form toxic, corrosive or flammable hydrogen cyanide gas (HCN). Reaction with water may generate much heat which will increase the concentration of fumes in the air. Contact with metals may evolve flammable hydrogen gas. Reacts violently or explosively with strong oxidising agents (e.g. acids, acid salts, nitrates, nitrites, nitric acid, peroxides and chlorates) [Note: Absorbs moisture from the air forming a syrup]. Fusion of mixtures of metal cyanides with metal chlorates, perchlorates, or nitrates causes a violent explosion. Explodes if melted with nitrite or chlorate at about 450 °C. Violent reaction with fluorine gas, magnesium.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 4.7 mg/kg (RTECS); LDLo (human): 2.8 mg/kg (RTECS).
Acute Toxicity - Dermal	LD5O (female rabbit): 7.7 mg/kg (powder, abraded skin)(IUCLID)
Acute Toxicity - Inhalation	No data available for NaCN. It can be expected that the acute inhalation toxicity of NaCN is comparable to HCN. (Test substance: HCN (CAS No.: 74-90-8): LC50 (female rat): 3.78 mg/l/10 sec.; 1.13 mg/l/1 min.; 0.49 mg/l/5 min.; 0.15-0.17 mg/l/30 min.; 0.16 mg/l/60 min.
Ingestion	Highly toxic if swallowed. Corrosive to the gastrointestinal tract. Symptoms may include burning sensation, a bitter, pungent burning taste in the mouth, abdominal pain, nausea, vomiting, diarrhoea and possible burns. Bitter almonds odour may be noted on the breath or vomitus. Ingestion of high concentration may result in symptoms similar to those noted for inhalation exposure. Massive doses may produce sudden loss of conciousness and prompt death from respiratory arrest. Smaller but still lethal doses may prolong the illness for one or more hours.
Inhalation	Highly toxic by dust inhalation. Dusts, and especially heated or misted material is corrosive to mucous membranes and upper respiratory tract. Symptoms of exposure to high concentrations may include burning sensation, obstruction, bleeding, sloughs and in some cases perforations of the nasal septum, sore throat, coughing, wheezing, lung irritation, absorption, metabolic effects (inhibition of cellular respiration causing metabolic asphyxiation), flushing, changes to the blood, thyroid and central nervous system, headache, weakness, dizziness, anxiety, agitation, confusion, sweating, nausea, vomiting, changes in motor activity, tremors, seizures, convulsions and stupor. Exposure to as little as a few breaths of higher concentrations may produce tissue anoxia, respiratory effects (tachypnea, hyperpnea (abnormally rapid or deep breathing), dyspnoea, followed rapidly by respiratory depression), cardiovascular effects (hypertension, hypotension, cardiac arrhythmias (palpitations)), non-cardiogenic pulmonary oedema, cyanosis, unconciousness, convulsions, coma, and death. Death may occur within a few minutes. If death is averted, recovery is usually complete. Possible after-effects may resemble oxygen deprivation effects.
Skin	Highly toxic by skin contact and if absorbed through the skin. Concentrated HCN vapour may also be absorbed through the skin. Skin contact with solutions can cause symptoms similar to those described under 'Inhalation' above. Dust may cause skin irritation and possible burns especially if the skin is wet or moist. Solutions are expected to be corrosive, and can cause severe skin burns with blistering, permanent scarring, ulceration (slow healing) and, in severe cases, death. Symptoms following a significant acute exposure to cyanide may possibly include neurobehavioural disorders, such as an acute psychosis.
Eye	Highly toxic if absorbed through the eye. Eye contact and absorption through the eyes may cause the symptoms as described under 'Inhalation' above. Solutions are expected to be corrosive. Dusts, solutions, mists and possibly very high exposures to HCN vapour can cause very severe eye irritation, redness, pain, blurred vision and, in some cases, permanent damage to optic nerves, retina and vision, including blindness.

Carcinogenicity	Not listed in the IARC Monographs.
Reproductive Toxicity	Hydrogen cyanide [resp/skin]: Comments / Potential Problems: animal-impaired spermatogenesis and fertility, reduced brain function (From: ôReproductive Hazards of the Workplace" by Linda M. Frazier, MD, MPH & Marvin L. Hage, MD). Cyanide [57-12-5] is listed as a Suspected Developmental Toxin (EPA-SARA).
Chronic Effects	Chronic exposure may result in Central Nervous System (CNS) effects (headaches, vertigo, insomnia, memory loss, tremors, fatigue, weakness, dizziness, psychosis), metabolic effects (poor appetite), nausea or vomiting, and a bitter or almond taste, cardiovascular effects (chest discomfort, palpitations), damage to the blood, kidneys, liver, lens or cornea, nerve damage to the eyes, irritation to the eyes, respiratory tract and skin, dermatitis, 'cyanide' rash (itching, macular, papular, and vesicular eruptions, and possible concomitant secondary infections), nasal sores, thyroid gland effects (interference with iodine uptake, enlargement), mild abnormalities of vitamin B12, and folate function, several clinical syndromes or death.
Skin corrosion/irritation	The chemicals are classified as hazardous with the risk phrase 'Irritating to skin' (H315) in the HSIS (Safe Work Australia). No data are available to support this classification. However, dermal toxicity of cyanides is sufficiently high (see Acute dermal toxicity section) such that death or systemic toxicity are likely to occur before local inflammatory irritation effects in the skin develop (ECETOC, 2007; NICNAS, 2010). As a result, no standard skin irritation studies have been conducted on sodium cyanide or potassium cyanide.

12. Ecological information

Ecotoxicity	Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. Hazard for drinking water supplies. Forms toxic and corrosive mixtures with water even if diluted. Risk of formation of toxic and explosive mixtures with air above water surface.
Persistence and degradability	Abiotic degradation: Slow degradation. (air). Biodegradation: >99 % /7 d. COD: 0.816 g/g.
Mobility	Distribution: log P(oct): 0.44; No bioaccumulation is to be expected (log P(o/w <1).
Known Harmful Effects on the Environment	This material is expected to be very toxic to aquatic life. This material is expected to be very toxic to terrestrial life.
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	Static test LC50 - Tilapia mossambica - 0.04 mg/l - 96 h
Acute Toxicity - Daphnia	LC50 - Daphnia magna (Water flea) - 0.09 mg/l - 96 h

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following: -Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.
U.N. Number	1689
UN proper shipping name	SODIUM CYANIDE
Transport hazard class(es)	6.1
Hazchem Code	2X
Packaging Method	3.8.6.1
Packing Group	I
EPG Number	6.0.002
IERG Number	40

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). NICNAS Priority Existing Chemical Assessment http://www.nicnas.gov.au/__data/assets/pdf_file/0018/4392/PEC_31_Sodium-Cyanide_Full_Report_PDF.pdf
Poisons Schedule	S7

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Substances Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
Empirical Formula & Structural Formula	NaCN

...End Of MSDS...