



Infosafe No™ 1CH7H	Issue Date :November 2011	-ISSUED by CHEMSUPP	CS: 1.4.95
--------------------	---------------------------	---------------------	------------

Product Name **ZINC NITRATE**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name ZINC NITRATE
Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)
Address 50 Bedford Street GILLMAN
 SA 5013 Australia
Telephone/Fax Number Tel: (08) 8440-2000
 Fax: (08) 8440-2001
Recommended Use Acidic catalyst, latex coagulant, laboratory reagent, intermediate and mordant.

Other Names	Product Code
ZINC NITRATE HEXAHYDRATE LR	ZL008
ZINC NITRATE HEXAHYDRATE AR	ZA008

Other Information EMERGENCY CONTACT NUMBER: +61 08 8440 2000
 Business hours: 8:30am to 5:00pm, Monday to Friday.

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. HAZARDS IDENTIFICATION

Hazard Classification Classified as hazardous according to criteria of NOHSC
 HAZARDOUS SUBSTANCE.
 DANGEROUS GOODS.
 Hazard classification according to the criteria of NOHSC.
 Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk Phrase(s) Classified as hazardous according to criteria of NOHSC
 R22 Harmful if swallowed.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrase(s) R8 Contact with combustible material may cause fire.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

Irritancy of Product Inhalation of dust may irritate nose and throat. Contact with eyes causes irritation. May cause severe skin irritation. May cause severe digestive tract irritation.

Teratogenicity No evidence of teratogenic effects.

Medical Conditions Generally Aggravated by Exposure Safety Hazards Persons with pre-existing eye, skin or respiratory conditions may be more susceptible.

Environmental Hazards Mixtures with combustible material are readily ignited and may burn fiercely.
 Bactericidal effect. Hazard for drinking water supplies.

3. COMPOSITION/INFORMATION ON INGREDIENTS



Infosafe No™ 1CH7H	Issue Date :November 2011	-ISSUED by CHEMSUPP	CS: 1.4.95
--------------------	---------------------------	---------------------	------------

Product Name **ZINC NITRATE**

Classified as hazardous according to criteria of NOHSC

Chemical Solid**Characterization****Ingredients**

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
Zinc nitrate hexahydrate	10196-18-6	100 %	Xn, Xi, O, N	R22, R36/37/38, R50/53, R8

4. FIRST AID MEASURES

Inhalation	Remove from exposure, rest and keep warm. In severe cases seek medical attention.
Ingestion	Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting. Seek medical attention.
Skin	Wash affected area thoroughly with copious amounts of running water. Remove contaminated clothing and wash before reuse. Seek medical attention in severe cases.
Eye	If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically and supportively.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. FIRE FIGHTING MEASURES

Hazards from Combustion Products	Toxic oxides of nitrogen, toxic fumes of zinc oxide, nitrous gases, nitric oxides, nitric acid, nitrogen and zinc.
Specific Methods	Small fire: USE FLOODING QUANTITIES OF WATER. Do not use dry chemicals, CO2 or foam. If safe to do so, move undamaged containers from fire area. Do not move cargo if cargo has been exposed to heat. Large fire: Flood fire area with water from a protected position. Cool containers with flooding quantities of water until well after fire is out - If impossible, withdraw from area and let fire burn. Avoid getting water inside containers: a violent reaction may occur. Dam fire control water for later disposal.
Specific Hazards	Will accelerate burning when involved in a fire. May explode from heating, shock, friction or contamination. Some will react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, clothing, etc). Fire may produce irritating, poisonous, and/or corrosive gases. Containers may explode when heated. Runoff may create fire or explosion hazard. Mixtures with combustible material are readily ignited and may burn fiercely.
Hazchem Code	1Y
Decomposition Temp.	105-131 °C (loses water of crystallization)
Precautions in connection with Fire	Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	Do not contaminate. Keep combustibles (wood, paper, clothing, oil, etc.) away from spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use water spray to knock down vapours or divert vapour clouds. Prevent entry into waterways, drains or confined areas. Prevent exposure to heat. Dry Spill Use clean non-sparking tools to transfer material to a clean, dry plastic container and cover loosely. Move container from spill area. Small Liquid Spill Use a non-combustible material like vermiculite, sand or earth to soak up the product and place in a loosely-covered container for later disposal. Large Liquid Spill SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
------------------------------	--



Infosafe No™ 1CH7H	Issue Date :November 2011	-ISSUED by CHEMSUPP	CS: 1.4.95
--------------------	---------------------------	---------------------	------------

Product Name ZINC NITRATE

Classified as hazardous according to criteria of NOHSC

Personal Protection Wear protective clothing specified for normal operations (see Section 8)**7. HANDLING AND STORAGE**

Precautions for Safe Handling Avoid ingestion and inhalation of vapour or dust. Avoid contact with eyes, skin, or clothing. Avoid prolonged or repeated exposure. Keep closed. Minimize dust generation and accumulation. Operations should be carried out in an efficient fume hood or equivalent system. Use 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. Wear suitable protective clothing. Rubber gloves, eye protection and protective clothing should be worn. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Discard contaminated shoes. Keep away from heat and all sources of ignition. Ground all equipment containing material. Keep away from combustible material. Empty containers pose a fire risk, evaporate the residue under a fume hood. Chemicals should be used only by those trained in handling potentially hazardous materials.

Conditions for Safe Storage Store in tightly sealed containers, in a cool, dry, well-ventilated place away from incompatible materials. Product is hygroscopic. Take precautions to avoid contact with atmospheric moisture. Protect against physical damage, direct sunlight and moisture. Keep away from heat and sources of ignition (sparks and open flame). Ground all equipment containing material. Oxidizing materials should be stored in a separate safety storage cabinet or room. Avoid storage on wood floors. Separate from incompatibles, strong bases, combustibles, organic or other readily oxidizable materials. 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 Solutions in water are slightly corrosive. - ADGC**Storage Regulations** Refer Australian Standard AS 4326-1995 'The storage and handling of oxidizing agents'.**Storage Temperatures** Store at room temperature (15 to 25 °C recommended).**Unsuitable Materials** Organic material.**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Other Exposure Information A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by NOHSC Australia for this product. There is a blanket limit of 10 mg/m³ for dusts when limits have not otherwise been established.

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.

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 Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body Protection Flame retardant protective clothing. 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.

Hygiene Measures Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.



Infosafe No™ 1CH7H Issue Date :November 2011 -ISSUED by CHEMSUPP

CS: 1.4.95

Product Name **ZINC NITRATE**

Classified as hazardous according to criteria of NOHSC

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid
Appearance	Colourless or white crystals or flakes or white powder.
Odour	Slightly pungent nitric acid odour.
Decomposition Temperature	105-131 °C (loses water of crystallization)
Melting Point	~36 °C
Boiling Point	Decomposes @ 105 - 131 °C (loses water of crystallization).
Solubility in Water	Easily soluble in cold water (1843 g/l @ 20 °C).
Solubility in Organic Solvents	Very soluble in alcohol.
Specific Gravity	2.067
pH Value	5.1 (5% H ₂ O).
Vapour Pressure	Negligible (mm Hg).
Vapour Density (Air=1)	8.4; 10.3.
Volatile Component	0 %vol @ 21 °C
Octanol/Water Partition Coefficient	log Pow = -0.51.
Flammability	Not combustible but assists combustion of other substances. Strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
Explosion Properties	May act as initiation source for dust or vapour explosions.
Molecular Weight	297.47
Oxidising Properties	Strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Increases flammability of any combustible substance in contact with it.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under ordinary conditions of use and storage. Hygroscopic
Conditions to Avoid	Incompatible materials, heat, sparks, flames, or other sources of ignition, dust generation, combustible materials, reducing agents and moisture.
Incompatible Materials	Reducing agents, combustible materials, organic materials, metal powders, metals, cyanides, sodium hypophosphite, stannous chloride, thiocyanates, carbon, sulfur, copper, sulfides, metallic sulfides, phosphorus, alkalies, acids, amines.
Hazardous Decomposition Products	Toxic metal fumes of zinc and toxic fumes of nitrogen oxides, nitrous gases, nitric oxides, zinc oxide and nitric acid.
Hazardous Reactions	Explodes when sprinkled on hot carbon. Can react violently with carbon, copper, metal sulfides, organic matter, phosphorus, sulfur. Extremely reactive with reducing agents. Capable of reacting rapidly with reducing agents at elevated temperatures. Contact with combustible material may cause fire. Capable of reacting rapidly with combustible materials at elevated temperatures. Highly reactive with alkalis. Slightly reactive to reactive with organic materials, metals. Very slightly to slightly reactive with acids. Will not occur.
Hazardous Polymerization	

11. TOXICOLOGICAL INFORMATION

Inhalation	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. May cause methaemoglobinaemia, cyanosis (bluish)
-------------------	--



Infosafe No™ 1CH7H	Issue Date :November 2011	-ISSUED by CHEMSUPP	CS: 1.4.95
--------------------	---------------------------	---------------------	------------

Product Name ZINC NITRATE

Classified as hazardous according to criteria of NOHSC

Ingestion	discolouration of skin due to deficient oxygenation of the blood), convulsions, tachycardia, dyspnoea (laboured breathing), and death. Effect of the decomposition products: Inhalation may lead to the formation of oedemas in the respiratory tract.
Skin	May be harmful if swallowed. Causes irritation of the gastrointestinal tract with abdominal pain, nausea, vomiting and diarrhoea. If appreciable amounts are ingested, abdominal pain, cramps, nausea, collapse and drop in blood pressure may result together with faintness and bluish lips and skin (methaemoglobinaemia).
Eye	May cause severe skin irritation. Symptoms include redness, itching, and pain.
Chronic Effects	Causes eye irritation. Causes redness, tears and pain, possibly blurred vision.
Mutagenicity	Zinc salts are eliminated fairly promptly, making chronic effects less than acute.
Carcinogenicity	No evidence of mutagenic properties.
Acute Toxicity - Oral	No evidence of carcinogenic properties.
	LD50 (rat): 1190 mg/kg;

12. ECOLOGICAL INFORMATION

Ecotoxicity	Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. Hazard for drinking water supplies. Bactericidal effect. Depending on the concentration, nitrogen compounds may contribute to the eutrophication of drinking-water supplies.
Mobility	Distribution: log Pow = -0.51.
Bioaccumulative Potential	No bioaccumulation is to be expected (log Pow <1).
Information on Ecological Effects	The following applies to soluble zinc compounds in general: Inorganic zinc salts have a bactericidal effect. From >10 mg/Zn/l on, the bacteriological self-purification of water is inhibited or suppressed. Contamination of ground water involves risks for drinking water catchment.
Environ. Protection	The following applies to nitrates in general: Hazard for drinking water. Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	The following applies to soluble zinc compounds in general: lethal for fish from 0.1 mg/l in soft water. Leuciscus idus LC50: 21 mg/l (ZnCl2).
Acute Toxicity - Daphnia	The following applies to nitrates in general: Fish: LC50 >500 mg/l. zinc ions: toxic to Daphnia magna from 0.3 mg/l.
Acute Toxicity - Other Organisms	The following applies to soluble zinc compounds in general: toxic for water organisms. LC40 (Micro organisms): 0.2 - 1.8 mg/l.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

Transport Information	Dangerous Goods of Class 5.1 Oxidising Agents are incompatible in a placard load with any of the following: - Class 1, Class 2.1, Class 2.3, Class 3, Class 4, Class 5.2, Class 7, Class 8, Fire risk substances and combustible liquids.
U.N. Number	1514
Proper Shipping Name	ZINC NITRATE
DG Class	5.1
Hazchem Code	1Y
Packaging Method	3.8.5.1
Packing Group	II



Infosafe No™ 1CH7H	Issue Date :November 2011	-ISSUED by CHEMSUPP	CS: 1.4.95
--------------------	---------------------------	---------------------	------------

Product Name **ZINC NITRATE**

Classified as hazardous according to criteria of NOHSC

EPG Number 5A1

IERG Number 31

15. REGULATORY INFORMATION

Regulatory Information Listed in the Australian Inventory of Chemical Substances (AICS).**Poisons Schedule** Not Scheduled**Hazard Category** Harmful, Irritant, Oxidising, Dangerous for the environment

16. OTHER INFORMATION

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 Empirical Formula: N2O6Zn•6H2O.
 Structural Formula: Zn(NO3)2•6H2O.

Literature References Australian Government Department of Health and Ageing, 'Standard for the Uniform Scheduling of Medicines and Poisons No. 2', Commonwealth of Australia, August 2011.
 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.
 South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995.
 Standards Australia 'AS 1940-2004 The Storage and Handling of Flammable and Combustible Liquids.
 Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.
 Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]'.
 Worksafe Australia, 'Hazardous Substances Information System, 2005'.
 Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]'.
 Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]'.

User Codes	User Field Title	User Code
	CAS No.	10196-18-6
	Risk Phrases	8-22-36/37/38-50/53
	Safety Phrases	26-61
	...End Of MSDS...	

© Copyright ACOHS Pty Ltd
 Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe MSDS displayed on this site is the intellectual property of Acohs Pty Ltd.
 Copyright in the layout, presentation and appearance of each Infosafe MSDS displayed on this site is the intellectual property of Acohs Pty Ltd.
 The compilation of MSDS's displayed on this site is the intellectual property of Acohs Pty Ltd.
 Copying of any MSDS displayed on this site is permitted for personal use only and otherwise is not permitted. In particular the MSDS's displayed on this site cannot be