

MSDS 1230 Date of Issue/re-issue: **5.10.2018**

User declaration:- I have read and understood this Safety Data Sheet

Name:- _____ Signature _____ Date _____

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name



Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: NZ 0800154666	Tel +64 9 480 4386	FAX +64 9 480 4385
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Product	Ammonium Dichromate			Code	1230
CAS#	HSNO#	UN #	DG Class/es	Packing group #	
7789-09-5	HSR001309	1439	5.1	II	

Recommended use: Laboratory Investigations

2. Hazards Identification

2.1 GHS Classification

Oxidizing liquids or solids (Category B)

Acute toxicity, Oral (Category C)

Acute toxicity, Inhalation (Category B)

Acute toxicity, Dermal (Category D)

Skin corrosion (Category B)

Serious eye damage (Category A)

Respiratory sensitization (Category A)

Skin sensitization (Category B)

Germ cell mutagenicity (Category A)

Carcinogenicity (Category A)

Toxic to Reproduction (Category A)

Specific Target Organ Toxicity (Category A)

Aquatic toxicity (Acute or Chronic) (Category A)

HSNO Classification:

5.1.1B - Oxidising substances that are liquids or solids: medium hazard

6.1B (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic

6.1C (Oral) - Substance that is acutely toxic

6.1D (Dermal) - Substance that is acutely toxic

6.5A - Substance that is a respiratory sensitiser

6.5B - Substance that is a contact sensitiser

6.6A - Substance that is known or presumed to be a human mutagen

6.7A - Substance that is known or presumed to be a human carcinogen

6.8A - Substance that is known or presumed to be a human reproductive or developmental toxicant

6.9A (Repeated exposure) - Substance that is toxic to human target organs or systems

8.2C - Substance that is corrosive to dermal tissue

8.3A - Substance that is corrosive to ocular tissue

9.1A - Substance that is very ecotoxic in the aquatic environment

9.2B - Substance that is ecotoxic in the soil environment

9.3B - Substance that is ecotoxic to terrestrial vertebrates

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word **Danger**

Hazard statement(s)

H272 May intensify fire; oxidiser.

H301 Toxic if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H340 May cause genetic defects.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat.

P220 Keep/Store away from clothing/ combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P320 Specific treatment is urgent (see supplemental first aid instructions on this label).

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P391 Collect spillage.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

Restricted to professional users.

2.3 Other hazards - none

Hazard Classification Australia:

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC).

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2007 Transport of Dangerous Goods on Land.

HSNO Classification:

5.1.1B - Oxidising substances that are liquids or solids: medium hazard

6.1B (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic

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6.6A - Substance that is known or presumed to be a human mutagen

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9.3B - Substance that is ecotoxic to terrestrial vertebrates

Hazard statement codes:

H272 May intensify fire; oxidizer.

H301 Toxic if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H340 May cause genetic defects.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure by ingestion.
H410 Very toxic to aquatic life with long lasting effects.
H422 Toxic to the soil environment.
H432 Toxic to terrestrial vertebrates.

Precautionary statement codes - Prevention:

P102 Keep out of reach of children. -This statement applies only where the substance is available to the general public.
P103 Read label before use. -This statement applies only where the substance is available to the general public.
P104 Read Safety Data Sheet before use.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P260 Do not breathe dusts or fumes.
P264 Wash hands and skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P284 Wear respiratory protection.
P285 In case of inadequate ventilation wear respiratory protection.

Precautionary statement codes - Response:

P101 If medical advice is needed, have product container or label at hand. -This statement applies only where the substance is available to the general public.

GENERAL

P308+P313 IF EXPOSED OR CONCERNED: Get medical advice/ attention.

INHALATION

P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

INGESTION

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

SKIN

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P310 Immediately call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

EYE

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

OTHER

P391 Collect spillage.

Precautionary statement codes - Storage:

P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement codes - Disposal:
P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Ammonium dichromate	7789-09-5	100 %

4. FIRST AID MEASURES

Inhalation	Avoid becoming a casualty - to protect rescuer, use air-viva, oxy-viva or one-way mask. Remove affected person from contaminated area - Apply artificial respiration if not breathing. Do not give direct mouth-to-mouth resuscitation. Resuscitate in a well-ventilated area. Seek IMMEDIATE medical attention.
Ingestion	Do not induce vomiting. Immediately wash out mouth with water (never give anything by mouth if affected person is semi-conscious or unconscious). Seek immediate medical attention.
Skin	Remove all contaminated clothing. Wash gently and thoroughly with water and non-abrasive soap for 15 minutes. Ensure contaminated clothing is washed before re-use or discard. Seek medical attention.
Eye	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.
First Aid Facilities	Eye wash fountain, safety shower and normal washroom facilities.
Advice to Doctor	Treat symptomatically.
Other Information	For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor at once.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use appropriate fire extinguisher for surrounding environment.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes and gases including oxides of chromium.
Specific Hazards	Explosive when dry. Contact with combustible material may cause fire. Non-combustible, but will support the combustion of other materials.
Hazchem Code	1Y
Decomposition Temp.	180°C approx.
Precautions in connection with Fire	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Remove all sources of ignition. Increase ventilation. Evacuate all unprotected personnel. Do not breathe dust. Wear respiratory protection and full protective clothing to minimise exposure. Sweep up material avoiding dust generation - dampen spilled material with water to avoid airborne dust - then transfer material in to suitable vapour tight labelled containers for subsequent recycling or disposal. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.
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7. HANDLING AND STORAGE

Precautions for Safe Handling	Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Avoid inhalation of dust, and skin or eye contact. Establish good housekeeping practices. Remove dust accumulations on a regular basis. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in labelled, containers. Keep containers tightly closed. Store away from water, combustibles and incompatible materials. Have appropriate fire extinguishers available in and near the storage area. Reference should be made to AS 4326-2008 The storage and handling of oxidizing agents and all other applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for the mixture by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour. However, over-exposure to some industrial chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels. The exposure limits for dust not otherwise specified are as follows: Australian National Occupational Health And Safety Commission (NOHSC) exposure standards: Dust TWA 10 mg/m ³ (inspirable fraction) New Zealand Workplace Exposure Standards (OSH): Dust TWA 10 mg/m ³ (inspirable fraction); TWA 3 mg/m ³ (respirable fraction) TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
Biological Limit Values	No biological limit allocated.
Engineering Controls	This substance is very toxic and should be used with a local exhaust ventilation system, drawing dusts and fumes away from workers' breathing zone. Alternatively, a process enclosure system such as a fume cupboard should be employed. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn. If local exhaust ventilation is used, ensure sufficient air is replaced to compensate the air that has been removed. Refer to AS/NZS 2430.3.1:2004: Classification of hazardous areas - Examples of area classification - General, for further information concerning ventilation requirements.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk

assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Orange-red crystalline solid.
Odour	Odourless
Decomposition Temperature	180°C approx.
Melting Point	Decomposes before it melts.
Boiling Point	Not applicable
Solubility in Water	Soluble.
Specific Gravity	2.15 (water=1)
pH Value	4 approx. in 1% soln.
Vapour Pressure	Not applicable
Vapour Density (Air=1)	Not applicable
Flash Point	Not applicable
Flammability	Contact with combustible material may cause fire.
Auto-Ignition Temperature	Not applicable
Flammable Limits - Lower	Not applicable
Flammable Limits - Upper	Not applicable
Molecular Weight	252.10
Oxidising Properties	Mildly oxidising in solution, strongly oxidising in strong acid solution.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of storage and handling.
Conditions to Avoid	Extremes of temperature, direct sunlight and contact with incompatibles.
Incompatible Materials	Contact with organic materials, oils, greases and any oxidisable materials.
Hazardous Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes and gases including oxides of chromium.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	LD50 (Oral, Rat): 54mg/kg (both sexes) LC50 (Inhalation, Rat): 0.156 mg/l/4 hr. (both sexes) LD50 (Dermal, Rabbit): 1170 mg/kg (both sexes) Irritant (4 hr)(rabbit skin): not a corrosive agent.
Inhalation	The material is very toxic by inhalation. Will cause irritation to the mucous membrane and upper airways, resulting in coughing, nausea and breathing difficulties. Inhalation may cause sensitisation, and asthma-like symptoms in some individuals.
Ingestion	Toxic if swallowed. Symptoms of acute poisoning by ingestion are gastroenteritis, nephritis, oliguria and peripheral vascular collapse. Ingestion of this product will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.
Skin	Harmful in contact with skin. Causes burns. Corrosive to the skin. Skin contact can cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction. May cause sensitisation by skin contact.
Eye	Corrosive to eyes - contact can cause corneal burns. Contamination of eyes can result in permanent injury. Eye contact with vapour or liquid will cause stinging, blurring tearing, severe pain and possible permanent eye damage and blindness.
Chronic Effects	Toxic: danger of serious damage to health by prolonged exposure through inhalation. Chronic poisoning by inhalation of spray or dust may cause rhinitis & ulcers of the nasal septum. In addition bronchitis, gastritis and other inflammatory conditions may develop. The material may cause cancer if inhaled.
Reproductive Toxicity	May impair fertility. May cause harm to the unborn child. This product is classified by NOHSC as Toxic to reproduction Category 2 (substances that should be regarded as if they impair fertility in humans).
Mutagenicity	This material is classified as a Category 2 Mutagen according to National Occupational Health And Safety Commission (NOHSC). That is, there is sufficient evidence, generally on the basis of appropriate animal studies and other relevant information, to provide a strong presumption that human exposure can result in the development of heritable genetic damage. Category 2 Mutagens are substances that should be regarded as if they are mutagenic to humans.
Carcinogenicity	This substance is classified as a Category 2 Carcinogen according to National Occupational Health and Safety Commission (NOHSC). That is, there is sufficient evidence, on the basis of appropriate long term animal studies or other relevant information, to provide a strong presumption that human exposure to this substance may result in the development of cancer. Category 2 Carcinogens are substances that should be regarded as if they are carcinogenic to humans.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistence / Degradability	Not available
Mobility	Not available
Environment Protection	Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations	Product Disposal: Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. The product should be rendered non-hazardous before being sent to a licensed landfill facility.
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Do not dispose directly into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed.

In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the ERMA New Zealand website under specific group standards.

Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.

Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

14. TRANSPORT INFORMATION

Transport Information Australia:

This material is classified as a Division 5.1 (Oxidising Agents) Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).

Division 5.1 Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Division 2.1, Flammable Gases
- Division 2.3, Toxic Gases
- Class 3, Flammable Liquids
- Division 4.1, Flammable Solids
- Division 4.2, Spontaneously Combustible Substances
- Division 4.3, Dangerous When Wet Substances
- Some Division 5.1 Oxidising substances (Refer Table 9.2)
- Division 5.2, Organic Peroxides
- Class 6, Toxic and Infectious Substances, if the Class 6 substance is a fire risk substance
- Class 7, Radioactive Substances
- Class 8, Corrosive Substances
- Class 9, Miscellaneous Dangerous Goods, if the Class 9 substance is a fire risk substance
- Fire risk substances
- Combustible liquids

New Zealand:

This material is classified as a Class 5.1 Oxidising Substance according to NZS 5433:2007 Transport of Dangerous Goods on Land. This material must not be loaded in the same freight container or on the same vehicle with:

- Class 1, Explosive
- Class 2.1, Flammable gases
- Class 2.3, Toxic gases
- Class 3, Flammable liquids
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous When wet
- Class 5.2, Organic peroxides
- Class 6.2, Infectious substances
- Class 8, Corrosives

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- Class 4.1, Flammable Solids
- Class 6.1, Toxic Substances
- Class 7, Radioactive Materials unless specifically exempted

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- Flammable Liquids (Class 3),
- Class 4.1, Flammable Solids
- Class 4.2, Spontaneously Combustible Substances
- Class 4.3, Dangerous When Wet Substances
- Class 5.2, Organic Peroxides
- Class 6.1, Toxic Substances
- Class 6.2, Infectious Substances
- Class 8, Corrosive Substances

U.N. Number	1439
Proper Shipping Name	AMMONIUM DICHROMATE
DG Class	5.1
Hazchem Code	1Y
Packing Group	II
EPG Number	5F1
IERG Number	31

15. REGULATORY INFORMATION

Regulatory Information	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Poisons Schedule	S6
National and or International Regulatory Information	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. All components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempted. HSNO (CCID) Name: Chromic acid, diammonium salt
HSNO Approval Number	HSR001309
Hazard Category	Very Toxic,Corrosive,Oxidising,Dangerous for the environment,Explosive

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or

further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

END**END*****END*****END*****END***