MAXAM RIOFLEX MX 10000

MAXAM Australia

Chemwatch Hazard Alert Code: **2**

Chemwatch: **36-9176**
Version No: **6.1.1.1**
Safety Data Sheet according to WHS and ADG requirements

Issue Date: **12/04/2017**
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S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	MAXAM RIOFLEX MX 10000
Synonyms	Explosive, Blasting, Type E
Proper shipping name	EXPLOSIVE, BLASTING, TYPE E
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For general blasting purposes in quarrying and/ or mining operations.

Details of the supplier of the safety data sheet

Registered company name	MAXAM Australia
Address	141 Boundary Road Oxley QLD 4075 Australia
Telephone	+61 7 3717 1818
Fax	+61 7 3717 1888
Website	https://www.maxam-corp.com.au
Email	licensing.au@maxam.net

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1800 833 111 (24hrs)
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification [1]	Explosive Division 1.1, Eye Irritation Category 2A, Skin Sensitizer Category 1, Acute Aquatic Hazard Category 3
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*

Label elements

GHS label elements	
SIGNAL WORD	**DANGER**

Continued...

Hazard statement(s)

H201	Explosive; mass explosion hazard.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H402	Harmful to aquatic life

Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P230	Keep wetted with phlegmatizer.
P250	Do not subject to grinding/shock/sources of friction.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P363	Wash contaminated clothing before reuse.
P370+P380	In case of fire: Evacuate area.
P372	Explosion risk in case of fire.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

Precautionary statement(s) Storage

P401	Store according to local regulations for explosives.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
6484-52-2	>60	ammonium nitrate
7601-89-0	1-9	sodium perchlorate
18423-20-6	1-9	hexamine nitrate
Not Available	<1	guar gum
Not Available	<1	trace additives (chemical gassing catalyst, gum
Not Available	<1	dispersing agent, crosslinker, pH regulator)
7732-18-5	10-30	water

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.

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Ingestion	▸ If swallowed do **NOT** induce vomiting. ▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▸ Observe the patient carefully. ▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▸ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

The toxicity of nitrates and nitrites result from their vasodilating properties and their propensity to form methaemoglobin.

- Most produce a peak effect within 30 minutes.
- Clinical signs of cyanosis appear before other symptoms because of the dark pigmentation of methaemoglobin.
- Initial attention should be directed towards improving oxygen delivery, with assisted ventilation, if necessary. Hyperbaric oxygen has not demonstrated conclusive benefits.
- Institute cardiac monitoring, especially in patients with coronary artery or pulmonary disease.
- Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
- Naloxone, glucose and thiamine should be given if a multiple ingestion is suspected.
- Decontaminate using Ipecac Syrup for alert patients or lavage for obtunded patients who present within 2-4 hours of ingestion.
- Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue.(Cyanosis alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 5 minutes; repeat, using the same dose if symptoms of hypoxia fail to subside within 1 hour.

[*Ellenhorn and Barceloux: Medical Toxicology*]

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker who has been exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
1. Methaemoglobin in blood	1.5% of haemoglobin	During or end of shift	B,NS,SQ

B: Background levels occur in specimens collected from subjects **NOT** exposed

NS: Non-specific determinant;also observed after exposure to other materials

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

Symptoms of vasodilation and reflex tachycardia may present following organic nitrate overdose; most organic nitrates are extensively metabolised by hydrolysis to inorganic nitrites. Organic nitrates and nitrites are readily absorbed through the skin, lungs, mucosa and gastro-intestinal tract.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

DO NOT fight fires involving explosives.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

Advice for firefighters

Fire Fighting	Fire-fighting fires involving explosives generally considered inappropriate. Evacuation procedures should be followed. Public Safety, outside the immediate are of the incident,is of paramount concern and the following actions should be considered: ▸ People should be warned to stay indoors with all doors and windows closed, preferably in rooms upstairs and facing away from the incident. Ignition sources should be eliminated and any ventilation stopped. For Division 1.1 Explosives Evacuation is required is case of Emergency. For quantities of up to: ▸ 1000 kg, the evacuation distance is 400 metres ▸ 5000 kg, the evacuation distance is 600 metres ▸ 20000 kg, the evacuation distance is 800 metres ▸ 40000 kg, the evacuation distance is 1000 meters |Hazchem or Emergency Action Code: E
Fire/Explosion Hazard	▸ Will not burn but increases intensity of fire. ▸ Heating may cause expansion or decomposition leading to violent rupture of containers. ▸ Heat affected containers remain hazardous. ▸ Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition.

Continued...

	Division 1.1 Substances, mixtures and articles which have a mass explosion hazard (a mass explosion is one which affects almost the entire quantity present virtually instantaneously). Explosives are defined as substances which are capable by chemical reaction of producing gas at such a temperature and pressure and at such speed as to cause damage to the surroundings. Pyrotechnic substances are included even when they do not evolve gases. Compatibility Group D explosives are secondary detonating explosive substances or black powder or articles containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or articles containing a primary explosive substance and containing two or more effective protective features Decomposition may produce toxic fumes of: , nitrogen oxides (NOx) , chlorides |On burning under confined or semi-confined conditions, some oxides of nitrogen and/or carbon will be present. Brown fumes indicate the presence of toxic oxides of nitrogen.
HAZCHEM	E

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	**WARNING!: EXPLOSIVE.** BLAST and/or PROJECTION and/or FIRE HAZARD ▸ Clean up all spills immediately. ▸ Avoid inhalation of the material and avoid contact with eyes and skin. ▸ Wear impervious gloves and safety glasses.
Major Spills	**WARNING!**: EXPLOSIVE. ▸ Clear area of personnel and move upwind. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ May be violently or explosively reactive.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▸ **DO NOT** allow clothing wet with material to stay in contact with skin ▸ Handle gently. Use good occupational work practice. ▸ Observe manufacturer's storage and handling recommendations contained within this SDS. ▸ Avoid all personal contact, including inhalation.
Other information	▸ Store cases in a well ventilated magazine licensed for the appropriate Class, Division and Compatibility Group. ▸ Rotate stock to prevent ageing. Use on FIFO (first in-first out) basis. ▸ Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	▸ All packaging for Class 1 Goods shall be in accordance with the requirements of the relevant Code for the transport of Dangerous Goods. ▸ Class 1 is unique in that the type of packaging used frequently has a very decisive effect on the hazard and therefore on the assignment to a particular division Packaging for explosive substances shall meet the test requirements for Packaging Group II.
Storage incompatibility	Ammonium nitrate: ▸ is a strong oxidiser ▸ reacts violently and/ or forms explosive mixtures with hot water, reducing agents, combustible materials,flammable liquids, organic materials, ammonium dichromate, barium chloride, barium nitrate, charcoal, cyanoguanidine, oils, phosphorus, potassium chromate, potassium dichromate, potassium nitrate, potassium permanganate, sodium chloride, finely divided metals ▸ forms explosive and/ or heat- and shock- sensitive compounds with acetic acid, alkali metals (potassium, sodium etc.), ammonia, nitric acid, sodium hypochlorite, sulfur, urea ▸ may explode violently when heated and contained or confined

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	NOTE:- Explosive detonations can occur when material is mixed with organic material, oils or charcoals and when heated or subjected to shock. ▸ Avoid contact with other explosives, pyrotechnics, solvents, adhesives, paints, cleaners and unauthorized metals, plastics, packing equipment and materials. ▸ Avoid contamination with acids, alkalis, reducing agents, amines and phosphorus. ▸ Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous ▸ Explosion hazard may follow contact with incompatible materials ▸ Avoid storage with reducing agents.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
ammonium nitrate	Ammonium nitrate	6.7 mg/m3	73 mg/m3	440 mg/m3
sodium perchlorate	Sodium perchlorate	6.3 mg/m3	69 mg/m3	420 mg/m3
sodium perchlorate	Sodium perchlorate monohydrate	3.8 mg/m3	41 mg/m3	250 mg/m3

Ingredient	Original IDLH	Revised IDLH
ammonium nitrate	Not Available	Not Available
sodium perchlorate	Not Available	Not Available
hexamine nitrate	Not Available	Not Available
guar gum	Not Available	Not Available
trace additives (chemical gassing catalyst, gum	Not Available	Not Available
dispersing agent, crosslinker, pH regulator)	Not Available	Not Available
water	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Use in a well-ventilated area Engineering controls for explosive substances are designed to reduce or eliminate fragmentation and/or blast effects either by suppression of the source of detonation or by protection at the exposed location, or both. Barricades, shields, contained detonation chambers, and “zero quantity-distance (Q-D)” magazines are examples of engineering controls. Engineering controls are designed and tested in a rigorous fashion. The construction of the engineering control must be carefully duplicated in field applications to assure it will function properly.
Personal protection	
Eye and face protection	▸ Safety glasses with side shields. ▸ Chemical goggles. ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber · Non-sparking or conductive footwear essential. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn.
Body protection	See Other protection below

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Other protection	For handling explosives or explosive compositions: ▸ Wear close-fitting flame-protection treated clothing closed at the neck and sleeves. ▸ Cotton underwear, socks and conductive shoes are recommended to avoid human static discharge. Manufacture may require: ▸ Non-static flame retardant treated clothing ▸ Access to deluge Safety shower ▸ Barrier cream.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the ***computer-generated*** selection:
MAXAM RIOFLEX MX 10000

Material	CPI
BUTYL	C
NATURAL RUBBER	C
NEOPRENE	C
PVA	C
VITON	C

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	A non-cap sensitive watergel slurry. Highly resistant to shock, friction and fire. Oxidiser.|Rioflex is oxygen balanced, consequently, produces minimal quantities of toxic fumes and it can be used over a wide range of temperatures. Sensitised in situ while loading.

Physical state	Gel	**Relative density (Water = 1)**	0.85-1.32
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	Not Available	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Miscible	**pH as a solution (1%)**	Not Available

Continued...

Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Presence of heat source and ignition source ▸ Product is considered stable under normal handling conditions. ▸ Stable under normal storage conditions. ▸ Hazardous polymerization will not occur. ▸ Avoid contact with other explosives, pyrotechnics, solvents, adhesives, paints, cleaners and unauthorized metals, plastics, packing equipment and materials. ▸ Avoid contamination with acids, alkalis, reducing agents, amines and phosphorus. |Not expected to be sensitive to static discharge or mechanical impact.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Swallowing large doses of ammonium nitrate may cause dilation of blood vessels by direct smooth muscle relaxation and methaemoglobinaemia. Symptoms include dizziness, abdominal pain, vomiting, bloody diarrhoea, weakness, convulsions and collapse. Other effects of exposure include headache, warm flushed skin, nausea, vomiting, diuresis and fatigue. Both tachycardia and bradycardia, atrial fibrillation, cardiac ischaemia, frequent ventricular premature beats and bigeminy have been reported. Symptoms of exposure to perchlorates include shortness of breath, difficulty breathing and a bluish discolouration of the skin. The effects may be delayed for several hours following exposure.
Skin Contact	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Chronic exposure to ammonium nitrate may produce low blood pressure and fatigue. Swallowing 6-12 grams per day in the long term has produced inflammation of the stomach, acidity of the blood, excessive urine output and nitrite toxicity, manifested by methaemoglobin the blood or dilation of blood vessels.

	TOXICITY	IRRITATION
MAXAM RIOFLEX MX 10000	Not Available	Not Available
ammonium nitrate	dermal (rat) LD50: >5000 mg/kg[1] Oral (rat) LD50: 2217 mg/kg[2]	Not Available
sodium perchlorate	Oral (rat) LD50: 2100 mg/kg[2]	Not Available
hexamine nitrate	Not Available	Not Available
water	Oral (rat) LD50: >90000 mg/kg[2]	Not Available

Continued...

Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

HEXAMINE NITRATE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.
HEXAMINE NITRATE & WATER	No significant acute toxicological data identified in literature search.

Acute Toxicity	⊘	**Carcinogenicity**	⊘
Skin Irritation/Corrosion	⊘	**Reproductivity**	⊘
Serious Eye Damage/Irritation	✔	**STOT - Single Exposure**	⊘
Respiratory or Skin sensitisation	✔	**STOT - Repeated Exposure**	⊘
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✘ *– Data available but does not fill the criteria for classification*
✔ *– Data available to make classification*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
ammonium nitrate	EC50	48	Crustacea	=111840mg/L	1
ammonium nitrate	EC03	168	Algae or other aquatic plants	=83mg/L	4
ammonium nitrate	NOEC	20	Fish	0.003mg/L	4
sodium perchlorate	LC50	96	Fish	>1000mg/L	2
sodium perchlorate	BCF	240	Fish	1100.0mg/L	4
sodium perchlorate	NOEC	240	Fish	0.75mg/L	4
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Harmful to aquatic organisms.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
water	LOW (LogKOW = -1.38)

Mobility in soil

Ingredient	Mobility
water	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Continued...

Product / Packaging disposal	Large quantities of deteriorated or damaged explosives shall be reported to MAXAM Australia Pty Ltd. Small quantities shall be consumed in a blast hole ONLY when the disposed product will not affect blast performance. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO
HAZCHEM	E

Land transport (ADG)

UN number	0241
UN proper shipping name	EXPLOSIVE, BLASTING, TYPE E
Transport hazard class(es)	Class: 1.1D Subrisk: Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	Special provisions: Not Applicable Limited quantity: 0

Air transport (ICAO-IATA / DGR)

UN number	0241
UN proper shipping name	Explosive, blasting, type E
Transport hazard class(es)	ICAO/IATA Class: 1.1D ICAO / IATA Subrisk: Not Applicable ERG Code: 1L
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special precautions for user	Special provisions: Not Applicable Cargo Only Packing Instructions: Forbidden Cargo Only Maximum Qty / Pack: Forbidden Passenger and Cargo Packing Instructions: Forbidden Passenger and Cargo Maximum Qty / Pack: Forbidden Passenger and Cargo Limited Quantity Packing Instructions: Forbidden Passenger and Cargo Limited Maximum Qty / Pack: Forbidden

Sea transport (IMDG-Code / GGVSee)

UN number	0241
UN proper shipping name	EXPLOSIVE, BLASTING, TYPE E
Transport hazard class(es)	IMDG Class: 1.1D IMDG Subrisk: Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable

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Special precautions for user	EMS Number	F-B, S-X
	Special provisions	Not Applicable
	Limited Quantities	0

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

AMMONIUM NITRATE(6484-52-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists | Australia Inventory of Chemical Substances (AICS)

SODIUM PERCHLORATE(7601-89-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists | Australia Inventory of Chemical Substances (AICS)

HEXAMINE NITRATE(18423-20-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	N (hexamine nitrate)
Canada - DSL	N (hexamine nitrate)
Canada - NDSL	N (water; hexamine nitrate; ammonium nitrate; sodium perchlorate)
China - IECSC	N (hexamine nitrate)
Europe - EINEC / ELINCS / NLP	N (hexamine nitrate)
Japan - ENCS	N (water; hexamine nitrate)
Korea - KECI	N (hexamine nitrate)
New Zealand - NZIoC	N (hexamine nitrate)
Philippines - PICCS	N (hexamine nitrate)
USA - TSCA	N (hexamine nitrate)
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
sodium perchlorate	7601-89-0, 7791-07-3

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists

Continued...

STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index