

Infosafe No™ 3CHC8 Issue Date : August 2021 RE-ISSUED by ACR

Product Name **THORIUM STANDARD 10,000 mg/L**

Classified as hazardous

1. Identification

GHS Product Identifier THORIUM STANDARD 10,000 mg/L
Company Name AUSTRALIAN CHEMICAL REAGENTS (ACR) (ABN 19 008 264 211)
Address 38 - 50 Bedford Street Gillman
 S.A. 5013 Australia
Telephone/Fax Number Tel: (08) 8440 2000
 Fax: (08) 8440 2001
Emergency phone number CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

Recommended use of the chemical and restrictions on use Laboratory reagent.

Other Names	Name	Product Code
	THORIUM STANDARD 10,000 mg/L in nitric acid	2612

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

Australian Chemical Reagents (ACR) 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 Australian Chemical Reagents (ACR) 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 Australian Chemical Reagents (ACR) 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 Eye Damage/Irritation: Category 1
 Skin Corrosion/Irritation: Category 1
 Carcinogenicity: Category 2
Signal Word (s) DANGER
Hazard Statement (s) H314 Causes severe skin burns and eye damage.
 H351 Suspected of causing cancer.
Pictogram (s) Health hazard, Corrosion



Precautionary statement – Prevention
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 Wash thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response
 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.
 P363 Wash contaminated clothing before reuse.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a

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--------------------	--------------------------	------------------

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position comfortable for breathing.
 P310 Immediately call a POISON CENTER or doctor/physician.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P405 Store locked up.

Precautionary statement – Storage

Precautionary statement – Disposal

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

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Nitric acid	7697-37-2	2-5 %
	Thorium oxide (as Th)	1314-20-1	1 %
	Water to make a total of 7732-18-5		
	100%		

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Wash with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
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	Nitrogen oxides can be released in case of fire.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media. Small fire: Use dry chemical, CO ₂ , water spray or foam. Large fire: Use water spray, fog or foam. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Product does not burn. Runoff may pollute waterways. Fire may produce irritating, poisonous and/or corrosive fumes.
Specific hazards arising from the chemical	
Hazchem Code	2X
Precautions in connection with Fire	Wear SCBA and structural firefighter's uniform.

6. Accidental release measures

Personal Precautions	Avoid substance contact. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. May be neutralised with sodium carbonate or limestone.

Infosafe No™ 3CHC8	Issue Date : August 2021	RE-ISSUED by ACR
--------------------	--------------------------	------------------

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7. Handling and storage

Precautions for Safe Handling	Avoid breathing vapour or mist. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Avoid ingestion. If you feel unwell, seek medical attention and show the label when possible.
Conditions for safe storage, including any incompatibilities	Keep in a tightly closed container, stored in a cool, dry, environment out of direct sunlight, away from heat. Store away from foods and other chemicals.
Storage Regulations	Refer Australian Standard AS 3780-2008 'The storage and handling of corrosive substances'.

8. Exposure controls/personal protection

Occupational exposure limit values	<u>Name</u>	STEL		TWA		<u>Footnote</u>
		<u>mg/m3</u>	<u>ppm</u>	<u>mg/m3</u>	<u>ppm</u>	
	Nitric acid	10	4	5.2	2	
Other Exposure Information	<p>These 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.</p> <p>A time weighted average (TWA) has been established for Nitric acid 4ppm (Safe Work Australia) of 10 mg/m³. The corresponding STEL (Short Term Exposure Limit) is 2 ppm or 5.2 mg/m³. The STEL is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. 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.</p>					
Appropriate engineering controls	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	Not normally required.					
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	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.					
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	No specific measures					
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	Liquid
Appearance	Clear liquid.

Infosafe No™ 3CHC8	Issue Date : August 2021	RE-ISSUED by ACR
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Odour	Odourless to a faint pungent odour.
Solubility in Water	Soluble.
Flammability	Non flammable.

10. Stability and reactivity

Chemical Stability	Stable under ordinary conditions of use and storage.
Conditions to Avoid	This is an acidic solution that will corrode metals. Will produce toxic gases on contact with cyanides, sulphides etc. Chlorine, organic materials, strong alkali.
Incompatible Materials	Strong alkalies, powdered metals.
Hazardous Decomposition Products	Oxides of nitrogen.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	May burn or irritate gastric tissue. May be harmful if swallowed.
Inhalation	Inhalation of vapours may irritate nose and throat. Inhalation of mists into lungs can cause pneumonitis.
Skin	Skin contact may cause redness, itchiness and irritation. May cause severe skin burns.
Eye	Eye contact may cause stinging, blurring and tearing. Corrosive to eyes; contact can cause corneal burns.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Thorium oxide is suspected to be human carcinogen. This solution contains depleted radioactive thorium oxide at 1% concentration. Thorium oxide is weakly radioactive and emits alpha particles which are harmful to the body. For the energy range of alpha particles usually encountered, a fraction of a millimetre of any ordinary material is sufficient for absorbance. Thin rubber, acrylic, stout paper or cardboard will suffice. Carcinogenicity: Category 2 H351 Suspected of causing cancer.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Chronic Effects	Repeated or prolonged skin contact may cause severe irritation or dermatitis.
Serious eye damage/irritation	Eye Damage/Irritation: Category 1 H314 Causes severe skin burns and eye damage.
Skin corrosion/irritation	Skin Corrosion/Irritation: Category 1 H314 Causes severe skin burns and eye damage.
Other Information	LD Intraarterial, Human: Thorium oxide 490 mg/kg.

12. Ecological information

Ecological Information	No ecological problems are to be expected when the product is handled and used with due care and attention.
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Infosafe No™ 3CHC8 Issue Date : August 2021 RE-ISSUED by ACR

Product Name **THORIUM STANDARD 10,000 mg/L**

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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 8 Corrosives are incompatible in a placard load with any of the following: - Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are alkalies and Class 7.

U.N. Number 3264

UN proper shipping name CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Transport hazard class(es) 8

Hazchem Code 2X

Packing Group II

IERG Number 37

15. Regulatory information

Regulatory Information All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Poisons Schedule S5

16. Other Information

Literature References 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'.
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand.
Safe Work Australia, 'Hazardous Chemical Information System'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'.
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.

Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**
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