

Australian statement of hazardous nature: Classified as hazardous according to criteria of Safe Work Australia

Section 1 - Identification

Product Name Nitric Acid 62- 70%

Product Code AJA1380, AJA1404, AJA341, AJA937, LCNA8202

Address ThermoFisher Scientific Australia Pty Ltd

5 Caribbean Drive, Scoresby VICTORIA 3179, Australia

Emergency Tel. CHEMTREC®

03 9757 4559 or +613 9757 4559

Telephone / Fax Numbers Tel: 1300 735 292

Fax: 1800 067 639

E-mail address ANZinfo@thermofisher.com

Recommended Use Laboratory chemicals.

Uses advised against

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product contains one or more substance(s) listed on the voluntary

National Code of Practice for Chemicals of Security Concern.

Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

Physical hazards

Oxidizing liquids Category 3
Substances/mixtures corrosive to metal Category 1

Health hazards

Skin Corrosion/Irritation Category 1 A
Serious Eye Damage/Eye Irritation Category 1

Environmental hazards
No hazards identified

Label Elements





AUS-000556 Version 2 14-Jul-2023 Page 1/10

Signal Word Danger

Hazard Statements

H272 - May intensify fire; oxidizer

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

AUH071 - Corrosive to the respiratory tract

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P220 - Keep away from clothing and other combustible materials

P221 - Take any precaution to avoid mixing with combustibles

P234 - Keep only in original packaging

P264 - Wash face, hands and any exposed skin thoroughly after handling

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

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

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

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep 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

P363 - Wash contaminated clothing before reuse

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P390 - Absorb spillage to prevent material damage

P402 - Store in a dry place

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

P406 - Store in corrosion resistant polypropylene container with a resistant inliner

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

Other information

This product does not contain any known or suspected endocrine disruptors

Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Nitric acid% [C ≤ 70 %]	7697-37-2	65-70
Water	7732-18-5	30-35

Section 4 - First Aid Measures

Inhalation Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or

inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately. If

not breathing, give artificial respiration.

Ingestion Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an

unconscious person. Call a physician immediately.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Remove and wash

contaminated clothing and gloves, including the inside, before re-use. Call a physician

immediately.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Immediate medical attention is required. Keep eye wide open while rinsing.

AUS-000556 Version 2 14-Jul-2023 Page 2/10

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

First Aid Facilities Eyewash, safety shower and washroom.

Most important symptoms and

effects

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue

and danger of perforation

Notes to Physician Treat symptomatically.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

Section 6 - Accidental Release Measures

Emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental Precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal. Wear self-contained breathing apparatus and protective suit.

Clean-up methods - large spillage

Typically only supplied is small quantiites as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

AUS-000556 Version 2 14-Jul-2023 Page 3 / 10

Precautions for Safe Handling

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from clothing and other combustible materials.

Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Do not store near combustible materials. Do not store in metal containers.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

Section 8 - Exposure Controls and Personal Protection

Exposure limits

AUS - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)]

Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia

ACGIH - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace.

UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

DE - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

NZ - Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

	Component	Australia New Zealand WEL ACGIH TLV		ACGIH TLV	The United Kingdom	Germany
Γ	Nitric acid% [C ≤	STEL: 4 ppm	TWA: 2 ppm	TWA: 2 ppm	STEL: 1 ppm 15 min	TWA: 1 ppm (8
	70 %]	STEL: 10 mg/m ³	TWA: 5.2 mg/m ³	STEL: 4 ppm	STEL: 2.6 mg/m ³ 15 min	Stunden). AGW -
	-	TWA: 2 ppm	STEL: 4 ppm		_	TWA: 2.6 mg/m ³ (8
		TWA: 5.2 mg/m ³	STEL: 10 mg/m ³			Stunden). AGW -

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Exposure Controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial

applications)

Hand Protection Protective gloves

ſ	Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
1	Butyl rubber	See manufacturers	-	AS/NZS 2161	(minimum requirement)
L		recommendations			

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

AUS-000556 Version 2 14-Jul-2023 Page 4 / 10

Skin and body protection Long sleeved clothing

Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or **Repiratory Protection**

other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

Liquid

(Air = 1.0)

Liquid

and maintenance of repiratory protective devices

Particulates filter conforming to EN 143 Acid gases filter Type E Yellow conforming to Recommended Filter type:

EN14387 (or AUS/NZ equivalent)

Recommended half mask:-Valve filtering: EN405 or Half mask: EN140 plus filter, EN 141 (or AUS/NZ equivalent)

When RPE is used a face piece Fit Test should be conducted

Handle in accordance with good industrial hygiene and safety practice. **Hygiene Measures**

Prevent product from entering drains. **Environmental exposure controls**

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Clear, colorless solution

Physical State Liquid

No information available Odor **Odor Threshold** No data available

рΗ

-41 °C / -41.8 °F **Melting Point/Range Softening Point** No data available **Boiling Point/Range** 120.5 °C / 248.9 °F

Flash Point Not applicable Method - No information available

No data available **Evaporation Rate** Flammability (solid,gas) Not applicable

Explosion Limits No data available

No data available **Vapor Pressure Vapor Density** No data available

Specific Gravity / Density No data available **Bulk Density** Not applicable

Water Solubility Soluble

No information available Solubility in other solvents

Partition Coefficient (n-octanol/water)

log Pow Component Nitric acid ...% [C ≤ 70 %] -2.3

Autoignition Temperature No data available **Decomposition Temperature** No data available **Viscosity** No data available **Explosive Properties** No information available

Oxidizing Properties Oxidizer

Other information

HNO₃ Molecular Formula **Molecular Weight** 63.02

Section 10 - Stability and Reactivity

Yes Reactivity

Stable under normal conditions. Oxidizer: Contact with combustible/organic material may Stability

cause fire.

Page 5/10 AUS-000556 Version 2 14-Jul-2023

Conditions to Avoid Incompatible products, Excess heat, Combustible material.

Incompatible Materials Strong reducing agents, Combustible material, Metals.

Hazardous Decomposition Products None under normal use conditions.

Hazardous Polymerization Hazardous polymerization does not occur.

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

(a) acute toxicity;

Oral Based on available data, the classification criteria are not met

Dermal No data available Inhalation Category 3

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid% [C ≤ 70 %]			LC50 = 2500 ppm. (Rat) 1h
Water	-	-	-

(b) skin corrosion/irritation; Category 1 A

Category 1 (c) serious eye damage/irritation;

(d) respiratory or skin sensitization;

No data available Respiratory Skin No data available

No data available (e) germ cell mutagenicity;

No data available (f) carcinogenicity;

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

No data available (i) STOT-repeated exposure;

Target Organs No information available.

(j) aspiration hazard; No data available

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes

severe swelling, severe damage to the delicate tissue and danger of perforation

Section 12 - Ecological Information

AUS-000556 Version 2 14-Jul-2023 Page 6/10

Ecotoxicity effects Contains a substance which is:. Harmful to aquatic organisms. The product contains

following substances which are hazardous for the environment.

Persistence and Degradability

Persistence

Degradation in sewage treatment plant **Bioaccumulative Potential**

Soluble in water, Persistence is unlikely, based on information available.

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants. Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)		
Nitric acid% [C ≤ 70 %]	-2.3	No data available		

Mobility

The product is water soluble, and may spread in water systems. Will likely be mobile in the

environment due to its water solubility Highly mobile in soils

Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Section 13 - Disposal Considerations

Waste from Residues/Unused

Products

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure

conformity with all applicable regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with low pH-value must be neutralized

before discharge.

Section 14 - Transport Information

IMDG/IMO

UN2031 **UN-No**

Proper Shipping Name NITRIC ACID SOLUTION

Technical Shipping Name NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% nitric acid.

Hazard Class

Subsidiary Hazard Class 5.1 **Packing Group**

ADG

UN-No UN2031

Proper Shipping Name NITRIC ACID SOLUTION

Technical Shipping Name NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% nitric acid.

Hazard Class Packing Group Ш

Component	Hazcnem Code
Nitric acid% [C ≤ 70 %]	2R
7697-37-2 (65-70)	2P
	2PE

IATA

UN-No UN2031

NITRIC ACID SOLUTION **Proper Shipping Name**

NITRIC ACID, other than red fuming, with at least 65%, but not more than 70% **Technical Shipping Name**

AUS-000556 Page 7/10 Version 2 14-Jul-2023

nitric acid.

Hazard Class 8
Packing Group ||

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

Section 15 - Regulatory Information

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

National Regulations Australia

See section 8 for national exposure control parameters.

Standard for the Uniform Scheduling of Medicines and Poisons

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons.

Component	Standard for the Uniform Scheduling of Medicines and Poisons			
Nitric acid% [C ≤ 70 %] - 7697-37-2	Schedule 5 listed - except its salts and derivatives; in preparations except in preparations containing			
	<=0.5% of Nitric acid			
	Schedule 6 listed - except its salts and derivatives; except when included in Schedule 5, or in			
	preparations containing <=0.5% of Nitric acid			

Australian Industrial Chemicals Introduction Scheme (AICIS)

	Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
	Nitric acid% [C ≤ 70 %] - 7697-37-2	Present	-
ı	Water - 7732-18-5	Present	-

Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemicals of Security Concern

This product contains one or more substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

Component	Australian - Illicit Drug Precursors/Reagents Substance List	Chemicals of Security Concern
Nitric acid% [C ≤ 70 %] - 7697-37-2		Listed in Appendix A
		Precursors to homemade explosives -
		concentration >=30%

Legend

Chemicals of Security Concern - for further information see http://www.chemicalsecurity.gov.au/securityconcerns

National pollutant inventory Subject to reporting requirements

Component	National pollutant inventory
Nitric acid% [C ≤ 70 %] - 7697-37-2	10 tonne/yr. Threshold category 1

Prohibition or notification/licensing requirements

AUS-000556 Version 2 14-Jul-2023 Page 8/10

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

International Inventories

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	ISHL	IECSC	KECL
Nitric acid …% [C ≤ 70	X	Х	231-714-2	-	Х	Х	-	Х	Х	Х	Х	KE-25911
%]												
Water	Х	Х	231-791-2	-	Х	Х	-	Х	Х		Х	KE-35400

Legend: X - Listed. '-' - Not Listed. KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their dispoal

Take note that wastes may be subject to export, import, or transit controls pursuant to the Basel convention and/or local regulations implementing the Basel convention.

Component	Basel Convention (Hazardous Waste)	Australian Hazardous Waste Act - Categories of Wastes to Be Controlled
Nitric acid% [C ≤ 70 %] - 7697-37-2	Annex I - Y34	Y34 solid or solution

Component	CAS No	OECD HPV	Restriction of Hazardous Substances (RoHS)	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Nitric acid% [C ≤ 70 %]	7697-37-2	Listed	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable

Authorisation/Restrictions according to EU REACH

	Component		REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	
Ī	Nitric acid% [C ≤ 70 %]	-	Use restricted. See item 75.	-
L			(see link for restriction details)	

https://echa.europa.eu/substances-restricted-under-reach

Section 16 - Other Information

Legend

AICS - Australian Inventory of Chemical Substances TSCA - United States Toxic Substances Control Act Section 8(b) NZIoC - New Zealand Inventory of Chemicals

AUS-000556 Version 2 14-Jul-2023 Page 9/10

EINECS/ELINCS - European Inventory of Existing Commercial Chemical

Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association**

MARPOL - International Convention for the Prevention of Pollution from Ships

NZS 5433:2020 - Transport of Dangerous Goods on Land

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% WEL - Workplace Exposure Limit **DNEL** - Derived No Effect Level POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative VOC - (Volatile Organic Compound)

OECD - Organisation for Economic Co-operation and Development LC50 - Lethal Concentration 50%

Substances/EU List of Notified Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ACGIH - American Conference of Governmental Industrial Hygienists

IMO/IMDG - International Maritime Organization/International Maritime

ATE - Acute Toxicity Estimate

Dangerous Goods Code

CAS - Chemical Abstracts Service

RPE - Respiratory Protective Equipment NOEC - No Observed Effect Concentration **BCF** - Bioconcentration factor

Predicted No Effect Concentration (PNEC)

PBT - Persistent, Bioaccumulative, Toxic

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data **Health Hazards** Calculation method **Environmental hazards** Calculation method

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hvaiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Chemical incident response training.

14-Jul-2023 **Revision Date**

Revision Summary Update to GHS format.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

AUS-000556 Version 2 14-Jul-2023 Page 10 / 10