

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

Section 1 - Identification

Product Name 2-Pyridineboronic acid N-phenyldiethanolamine ester

Product Code 439890000; 439890010; 439890050; 439890100

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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 does not contain any 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

No hazards identified

Health hazards

Skin Corrosion/IrritationCategory 2Serious Eye Damage/Eye IrritationCategory 1Specific target organ toxicity - (single exposure)Category 3Specific target organ toxicity - (repeated exposure)Category 2

Environmental hazards

No hazards identified

Label Elements







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Signal Word Danger

Hazard Statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

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

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

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

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

P310 - Immediately call a POISON CENTER or doctor

P362 + P364 - Take off contaminated clothing and wash it before reuse

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

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

Other information

Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
2-Pyridineboronic acid N-phenyldiethanolamine ester	662138-96-7	50-70
Isopropyl alcohol	67-63-0	15-30
N-Phenyl diethanolamine	120-07-0	10-25

Section 4 - First Aid Measures

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if

symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if

symptoms occur.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

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

medical attention.

General Advice If symptoms persist, call a physician.

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 eye burns. Causes severe eye damage.

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Notes to Physician

Treat symptomatically.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors, Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NOx), Oxides of boron.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Flammable.

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.

Section 6 - Accidental Release Measures

Emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

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

Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area.

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

Section 8 - Exposure Controls and Personal Protection

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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

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Isopropyl alcohol	STEL: 500 ppm	TWA: 400 ppm	TWA: 200 ppm	STEL: 500 ppm 15 min	TWA: 200 ppm (8
	STEL: 1230 mg/m ³	TWA: 983 mg/m ³	STEL: 400 ppm	STEL: 1250 mg/m ³ 15	Stunden). AGW -
	TWA: 400 ppm	STEL: 500 ppm		min	exposure factor 2
	TWA: 983 mg/m ³	STEL: 1230 mg/m ³		TWA: 400 ppm 8 hr	TWA: 500 mg/m ³ (8
				TWA: 999 mg/m ³ 8 hr	Stunden). AGW -
					exposure factor 2
					TWA: 200 ppm (8
					Stunden). MAK
					TWA: 500 mg/m ³ (8
					Stunden). MAK
					Höhepunkt: 400 ppm
					Höhepunkt: 1000 mg/m ³

Biological limit values

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

Component	Australia	New Zealand	European Union	United Kingdom	Germany
Isopropyl alcohol					Acetone: 25 mg/L whole
					blood (end of shift)
					Acetone: 25 mg/L urine
					(end of shift)

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

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Nitrile rubber Neoprene Natural rubber PVC	See manufacturers recommendations	-	AS/NZS 2161	(minimum requirement)

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.

Skin and body protection Long sleeved clothing

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

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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 and maintenance of repiratory protective devices (or AUS/NZ equivalent)

Solid

Solid

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

Environmental exposure controls No information available.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

AppearanceWhitePhysical StateSolid

Odor
Odor Threshold
PH
No data available
No information available
No data available
Not applicable

Flash Point No information available Method - No information available

Evaporation Rate Not applicable Solid

Flammability (solid,gas)

No information available

Explosion Limits No data available

Vapor PressureNo data availableVapor DensityNot applicable

Specific Gravity / Density
Bulk Density
Water Solubility
Solubility in other solvents

No data available
No data available
No information available
No information available

Partition Coefficient (n-octanol/water)

Componentlog PowIsopropyl alcohol0.05

Autoignition Temperature
Decomposition Temperature
Viscosity

No data available
No data available
Not applicable

Explosive PropertiesNo information available **Oxidizing Properties**No information available

Other information

Molecular Formula C15 H17 B N2 O2

Molecular Weight 268.13

Section 10 - Stability and Reactivity

Reactivity None known, based on information available

Stability Stable under recommended storage conditions.

Conditions to Avoid Incompatible products, Excess heat, Avoid dust formation, Protect from light.

Incompatible Materials Strong oxidizing agents, Acids.

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon

monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx). Oxides of boron.

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Hazardous Polymerization Hazardous polymerization does not occur.

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

(a) acute toxicity;

OralBased on available data, the classification criteria are not metDermalBased on available data, the classification criteria are not metInhalationBased on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl alcohol	5045 mg/kg (Rat) 3600 mg/kg (Mouse)	12800 mg/kg (Rat)	72.6 mg/L (Rat) 4 h
N-Phenyl diethanolamine	LD50 = 980 mg/kg (Rat)		LC50 > 0.1 mg/L (Rat) 8 h

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory No data available Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

(g) reproductive toxicity; No data available

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system

Central nervous system (CNS)

(i) STOT-repeated exposure; Category 2

Target Organs Blood.

(j) aspiration hazard; Not applicable

Solid

Symptoms / effects,both acute and No information available delayed

Section 12 - Ecological Information

Ecotoxicity effects

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Isopropyl alcohol	LC50: = 9640 mg/L, 96h	13299 mg/L EC50 = 48	EC50: > 1000 mg/L, 72h	= 35390 mg/L EC50

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	flow-through (Pimephales promelas) LC50: > 1400000 μg/L, 96h (Lepomis macrochirus) LC50: = 11130 mg/L, 96h static (Pimephales promelas) LC50: = 10000000 μg/L, 96h (Daphnia)	(Desmodesmus subspicatus) EC50: > 1000 mg/L, 96h (Desmodesmus subspicatus)	Photobacterium phosphoreum 5 min
N-Phenyl diethanolamine	LC50: = 735 mg/L, 96h flow-through (Pimephales promelas)		

Persistence and Degradability Bioaccumulative Potential

No information available No information available

Component	log Pow	Bioconcentration factor (BCF)					
Isopropyl alcohol	0.05	No data available					
Mobility No information available.							
Endocrine Disruptor Information	This product does not contain any known or s	uspected endocrine disruptors					
Persistent Organic Pollutant	This product does not contain any known or s	uspected substance					
Ozone Depletion Potential							

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. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains.

Section 14 - Transport Information

IMDG/IMO

UN-No UN3175

Proper Shipping Name Solids containing flammable liquid, n.o.s

Technical Shipping Name Isopropyl alcohol

Hazard Class 4.1 Subsidiary Hazard Class + Packing Group

<u>ADG</u>

UN-No UN3175

Proper Shipping Name Solids containing flammable liquid, n.o.s

Technical Shipping Name Isopropyl alcohol

Hazard Class 4.1
Packing Group

Component	Hazchem Code
Isopropyl alcohol	1Z

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67-63-0 (15-30)

IATA

UN-No UN3175

Proper Shipping Name Solids containing flammable liquid, n.o.s

Technical Shipping Name | Isopropyl alcohol

Hazard Class 4.1 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

No poison schedule number allocated.

Australian Industrial Chemicals Introduction Scheme (AICIS)

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Isopropyl alcohol - 67-63-0	Present	-
N-Phenyl diethanolamine - 120-07-0	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 does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

National pollutant inventory Not applicable

Prohibition or notification/licensing requirements

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

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2-Pyridineboronic acid N-phenyldiethanolamine ester

SAFETY DATA SHEET

Isopropyl alcohol	Х	Х	200-661-7	-	Х	Х	-	Χ	Х	Х	Х	KE-29363
N-Phenyl	Х	X	204-368-5	-	Х	Х	-	Х	Х	Х	Х	KE-28387
diethanolamine												

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

International Regulations

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

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
Isopropyl alcohol - 67-63-0	Annex I - Y42	Y42 except Halogenated solvents

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
2-Pyridineboronic acid	662138-96-7	Not applicable	Not applicable	Not applicable	Not applicable
N-phenyldiethanolamine ester	ethanolamine ester				
Isopropyl alcohol	67-63-0	Listed	Not applicable	Not applicable	Not applicable
N-Phenyl diethanolamine	120-07-0	Not applicable	Not applicable	Not applicable	Not applicable

Authorisation/Restrictions according to EU REACH

Component	,	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	
Isopropyl alcohol	-	Use restricted. See item 75. (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) 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

NZIoC - New Zealand Inventory of Chemicals

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

Predicted No Effect Concentration (PNEC)

IMO/IMDG - International Maritime Organization/International Maritime

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MARPOL - International Convention for the Prevention of Pollution from

Ships

NZS 5433:2012 - 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)

Dangerous Goods Code

ADG Australian Code for the Transport of Dangerous Goods by Road and Rail

OECD - Organisation for Economic Co-operation and Development

LC50 - Lethal Concentration 50%
ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment
NOEC - No Observed Effect Concentration

BCF - Bioconcentration factor

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

Health Hazards

Environmental hazards

On basis of test data
Calculation method
Calculation method

Training Advice

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

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.

Revision Date 17-Nov-2022 Revision Summary Not applicable.

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

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