

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

## Section 1 - Identification

**Product Name** Nitrification Inhibitor Formula 2533

<b>Product Code</b>	<b>HAC2533-35/ 253334</b>
<b>Address</b>	ThermoFisher Scientific Australia Pty Ltd 5 Caribbean Drive, Scoresby VICTORIA 3179, Australia
<b>Emergency Tel.</b>	<b>CHEMTREC®</b> <b>03 9757 4559 or +613 9757 4559</b>
<b>Telephone / Fax Numbers</b>	Tel: 1300 735 292 Fax: 1800 067 639
<b>E-mail address</b>	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 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

No hazards identified

#### Environmental hazards

Chronic aquatic toxicity

Category 3

**Label Elements** None required

#### **Hazard Statements**

H412 - Harmful to aquatic life with long lasting effects

#### **Other information**

No information available

This product does not contain any known or suspected endocrine disruptors

## Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Sodium sulfate	7757-82-6	>95
Nitrapyrin	1929-82-4	1-5

## Section 4 - First Aid Measures

Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Self-Protection of the First Aider	No special precautions required.
First Aid Facilities	Eyewash, safety shower and washroom.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically.

## Section 5 - Fire Fighting Measures

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 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.

### 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.

### Environmental Precautions

See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system.

### Methods for Containment and Clean Up

#### Clean-up methods - small spillage

**Clean-up methods - large spillage**

Typically only supplied in small quantities 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**

Ensure adequate ventilation.

**Conditions for Safe Storage, Including any Incompatibilities**

Keep container tightly closed in a dry and well-ventilated place.

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.

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Nitrapyrin	STEL: 20 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>		TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>		

**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**

None under normal use conditions.

**Personal protective equipment****Eye Protection**

Wear safety glasses with side shields (or 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
Disposable gloves	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 compatibility, 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.

<b>Skin and body protection</b>	Long sleeved clothing
<b>Respiratory Protection</b>	Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or 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 respiratory protective devices
<b>Recommended Filter type:</b>	Particle filter (or AUS/NZ equivalent)

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

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

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Appearance</b>	White	
<b>Physical State</b>	solid (crystal)	
<b>Odor</b>	No information available	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	No information available	
<b>Melting Point/Range</b>	No data available	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	No information available	
<b>Flash Point</b>	No information available	<b>Method -</b> No information available
<b>Evaporation Rate</b>	No data available	
<b>Flammability (solid,gas)</b>	No information available	
<b>Explosion Limits</b>	No data available	
<b>Vapor Pressure</b>	No data available	
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Specific Gravity / Density</b>	No data available	
<b>Bulk Density</b>	No data available	
<b>Water Solubility</b>	Soluble	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Sodium sulfate	-3	
Nitrapyrin	3.325	
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	No data available	
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

### Other information

## Section 10 - Stability and Reactivity

<b>Reactivity</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Heat, flames and sparks.

**Incompatible Materials** None known.

**Hazardous Decomposition Products** None under normal use conditions.

**Hazardous Polymerization** No information available.

## 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**

Based on available data, the classification criteria are not met

**Inhalation**

Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium sulfate	LD50 > 10000 mg/kg ( Rat )		LC50 > 2.4 mg/L ( Rat ) 4 h
Nitrapyrin	LD50 = 940 mg/kg ( Rat )	LD50 = 850 mg/kg ( Rabbit )	

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(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

There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs**

No information available.

**(j) aspiration hazard;** No data available

**Symptoms / effects, both acute and delayed** No information available

## Section 12 - Ecological Information

### Ecotoxicity effects

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
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Sodium sulfate	Pimephales promelas: LC50: 13.5 - 14.5 g/L/96h	EC50: 4547 mg/L/96h EC50: 2564 mg/L/48h EC50: 4547 mg/L/96h	-	-
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**Persistence and Degradability****Persistence**

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

**Degradation in sewage treatment plant**

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Bioaccumulative Potential**

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Sodium sulfate	-3	No data available
Nitrapyrin	3.325	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**

This product does not contain any known or suspected endocrine disruptors

**Persistent Organic Pollutant**

This product does not contain any known or suspected substance

**Ozone Depletion Potential**

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 let this chemical enter the environment. Do not empty into drains.

## Section 14 - Transport Information

**IMDG/IMO**

UN-No	UN3316
Proper Shipping Name	CHEMICAL KIT
Technical Shipping Name	Contains 2-Chloro-6-(Trichloromethyl)pyridine
Hazard Class	9
Packing Group	III

**ADG**

UN-No	UN3316
Proper Shipping Name	CHEMICAL KIT
Technical Shipping Name	Contains 2-Chloro-6-(Trichloromethyl)pyridine
Hazard Class	9
Packing Group	III

**IATA**

UN-No	UN3316
Proper Shipping Name	CHEMICAL KIT
Technical Shipping Name	Contains 2-Chloro-6-(Trichloromethyl)pyridine
Hazard Class	9
Packing Group	III

**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
Nitrapyrin - 1929-82-4	Schedule 6 listed - present

#### **Australian Industrial Chemicals Introduction Scheme (AICIS)**

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Sodium sulfate - 7757-82-6	Present	-
Nitrapyrin - 1929-82-4	Present	Specific information requirement: Obligations to provide information apply. You must tell us within 28 days if the circumstances of your importation or manufacture (introduction) are different to those in our assessment.

#### **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 licensing 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
Sodium sulfate	X	X	231-820-9	-	X	X	-	X	X	X	X	KE-31609
Nitrapyrin	X	X	217-682-2	-	X	X	-	-	-	X	X	KE-05-0915

**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 disposal**  
Not applicable.

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
Sodium sulfate	7757-82-6	Listed	Not applicable	Not applicable	Not applicable
Nitrapyrin	1929-82-4	Not applicable	Not applicable	Not applicable	Not applicable

**Authorisation/Restrictions according to EU REACH** Not applicable

## Section 16 - Other Information

### Legend

<b>AICS</b> - Australian Inventory of Chemical Substances	<b>NZIoC</b> - New Zealand Inventory of Chemicals
<b>TSCA</b> - United States Toxic Substances Control Act Section 8(b) Inventory	<b>EINECS/ELINCS</b> - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
<b>DSL/NDL</b> - Canadian Domestic Substances List/Non-Domestic Substances List	<b>ENCS</b> - Japanese Existing and New Chemical Substances
<b>IECSC</b> - Chinese Inventory of Existing Chemical Substances	<b>KECL</b> - Korean Existing and Evaluated Chemical Substances
<b>PICCS</b> - Philippines Inventory of Chemicals and Chemical Substances	<b>CAS</b> - Chemical Abstracts Service
<b>TWA</b> - Time Weighted Average	<b>ACGIH</b> - American Conference of Governmental Industrial Hygienists
<b>IARC</b> - International Agency for Research on Cancer	Predicted No Effect Concentration (PNEC)
<b>ICAO/IATA</b> - International Civil Aviation Organization/International Air Transport Association	<b>IMO/IMDG</b> - International Maritime Organization/International Maritime Dangerous Goods Code
<b>MARPOL</b> - International Convention for the Prevention of Pollution from Ships	<b>ADG</b> - Australian Code for the Transport of Dangerous Goods by Road and Rail
<b>NZS 5433:2020</b> - Transport of Dangerous Goods on Land	<b>OECD</b> - Organisation for Economic Co-operation and Development
<b>LD50</b> - Lethal Dose 50%	<b>LC50</b> - Lethal Concentration 50%
<b>EC50</b> - Effective Concentration 50%	<b>ATE</b> - Acute Toxicity Estimate
<b>WEL</b> - Workplace Exposure Limit	<b>RPE</b> - Respiratory Protective Equipment
<b>DNEL</b> - Derived No Effect Level	<b>NOEC</b> - No Observed Effect Concentration
<b>POW</b> - Partition coefficient Octanol:Water	<b>BCF</b> - Bioconcentration factor
<b>vPvB</b> - very Persistent, very Bioaccumulative	<b>PBT</b> - Persistent, Bioaccumulative, Toxic
<b>VOC</b> - (Volatile Organic Compound)	

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>  
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

### Training Advice

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

**Revision Date** 14-Jul-2023  
**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**