

## Section 1 - Identification

**Product Name**
**Fluoride A-Z test tablets**
**Product Code**
**TIN511400, TIN511410, TIN511411**
**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 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 not hazardous according to criteria of Safe Work Australia.

**Physical hazards**

No hazards identified

**Health hazards**

No hazards identified

**Environmental hazards**

No hazards identified

**Label Elements**

None required

**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 bisulfate	7681-38-1	50-60
Boric acid (H3BO3)	10043-35-3	40

## Section 4 - First Aid Measures

<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Self-Protection of the First Aider</b>	No special precautions required.
<b>First Aid Facilities</b>	Eyewash, safety shower and washroom.
<b>Most important symptoms and effects</b>	None reasonably foreseeable.
<b>Notes to Physician</b>	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. Use personal protective equipment as required. Avoid dust formation.

### Environmental Precautions

Should not be released into the environment.

### Methods for Containment and Clean Up

#### Clean-up methods - small spillage

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

#### Clean-up methods - large spillage

Not applicable, packaged goods.

**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. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

**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**

**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
Boric acid (H <sub>3</sub> BO <sub>3</sub> )			TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>		TWA: 0.5 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 10 mg/m <sup>3</sup> (8 Stunden). MAK when boric acid and tetraborates are present together, the MAK value is 0.75 mg boron/m <sup>3</sup> Höhepunkt: 10 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)
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Environmental exposure controls</b>	No information available.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Pink	
<b>Physical State</b>	Tablets	
<b>Odor</b>	No information available	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	3.1	
<b>Melting Point/Range</b>	No data available	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	Not applicable	
<b>Flash Point</b>	Not applicable	<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>	No information available	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-0.757	
<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.
<b>Incompatible Materials</b>	None known.
<b>Hazardous Decomposition Products</b>	None under normal use conditions.

Hazardous Polymerization

No information available.

## Section 11 - Toxicological Information

### Information on Toxicological Effects

**(a) acute toxicity;**

Oral

No data available

Dermal

No data available

Inhalation

No data available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium bisulfate	LD50 = 2490 mg/kg ( Rat )	>2000 mg/kg (rabbit)	
Boric acid (H3BO3)	2660 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	Not listed

**(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

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Sodium bisulfate		EC50: = 190 mg/L, 48h (Daphnia magna)		EC10 >1000 mg/l (Pseudomonas putida) (16h)
Boric acid (H3BO3)	Gambusia affinis: LC50: 5600 mg/L/96h	EC50: 115 - 153 mg/L, 48h (Daphnia magna)	-	-

**Persistence and Degradability** No information available

**Bioaccumulative Potential** No information available

Component	log Pow	Bioconcentration factor (BCF)
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-0.757	0 dimensionless

**Mobility** No information available.  
**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** Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

**Other Information** Chemical wastes should be disposed through a licensed commercial waste collection service.

## Section 14 - Transport Information

**IMDG/IMO** Not regulated

**ADG** Not regulated

**IATA** Not regulated

**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.

Component	Standard for the Uniform Scheduling of Medicines and Poisons
Sodium bisulfate - 7681-38-1	Schedule 5 listed - except in preparations containing <=10% of Sodium hydrogen sulfate
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) - 10043-35-3	Schedule 4 listed - for human therapeutic use except: in preparations for internal use containing <=6 mg Boron per recommended daily dose, in preparations for dermal use containing <=0.35% of Boron, which are not for paediatric or antifungal use, or when present as an excipient Schedule 5 listed - except: a) when included in Schedule 4, or b) in cosmetic hand cleaning

	<p>preparations when labelled with a warning to the following effect: NOT TO BE USED FOR CHILDREN UNDER 3 YEARS OF AGE, and if the concentration of free soluble Borates &gt;1.5% (as Boric acid), with the words: NOT TO BE USED ON PEELING OR IRRITATED SKIN, or c) in cosmetic Talc preparations containing &lt;=5% calculated as Boric acid when labelled with a warning to the following effect: NOT TO BE USED FOR CHILDREN UNDER 3 YEARS OF AGE, and if the concentration of free soluble Borates &gt;1.5% (as Boric acid), with the words: NOT TO BE USED ON PEELING OR IRRITATED SKIN, or d) in cosmetic oral hygiene preparations containing &lt;=0.1% calculated as Boric acid when labelled with a warning to the following effect: NOT TO BE SWALLOWED. NOT TO BE USED FOR CHILDREN UNDER 3 YEARS OF AGE, or e) in other cosmetic preparations containing &lt;=3% calculated as Boric acid when labelled with a warning to the following effect: NOT TO BE USED FOR CHILDREN UNDER 3 YEARS OF AGE, and if the concentration of free soluble Borates &gt;1.5% (as Boric acid), with the words: NOT TO BE USED ON PEELING OR IRRITATED SKIN, or f) in preparations, other than insect baits, containing &lt;=6%, calculated as Boric acid</p>
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#### Australian Industrial Chemicals Introduction Scheme (AICIS)

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Sodium bisulfate - 7681-38-1	Present	-
Boric acid (H <sub>3</sub> BO <sub>3</sub> ) - 10043-35-3	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	NDL	PICCS	ENCS	ISHL	IECSC	KECL
Sodium bisulfate	X	X	231-665-7	-	X	X	-	X	X	X	X	KE-31481
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	X	X	233-139-2	-	X	X	-	X	X	X	X	KE-03499

**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 bisulfate	7681-38-1	Listed	Not applicable	Not applicable	Not applicable
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	10043-35-3	Listed	Not applicable	Not applicable	Not applicable

#### Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Sodium bisulfate	-	Use restricted. See item 75. (see link for restriction details)	-
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	-	Use restricted. See item 30. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	SVHC Candidate list - 233-139-2 - Toxic for reproduction, Article 57c

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/candidate-list-table>

<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/NDL** - 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)

**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 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

#### 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**