

# SAFETY DATA SHEET



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## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product Identifiers

Product name : 2,3,4,5-Tetrafluorobenzoic acid

Generic name : 2345-TTFBA

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Diagnostic

Uses advised against : Not available

### 1.3 Details of the supplier of the safety data sheet

Importer : ProTechnics International  
Division of Core Laboratories  
31-35 George St.  
Thebarton, SA, AUSTRALIA 5031

Telephone : (08) 8152 0244

### 1.4 Emergency telephone number

Poisons Information Centre : 13 11 26 (24 hour)

Ambulance, Fire, Police : 000

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## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

GHS classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove affected person into fresh air and keep at rest in a position comfortable for breathing.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Substances

Substance/ mixture                      Mixture

Ingredient	CAS/Exempt No	Percent	Hazardous
2,3,4,5-Tetrafluorobenzoic acid	1201-31-6	10	No
Water	7732-18-5	90	No

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### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### If inhaled

Move person into fresh air. If cough or other symptoms develop, consult a physician.

##### In case of skin contact

Remove contaminated clothing including shoes and immediately wash affected area with plenty of soap and water. If irritation continues, consult a physician. Wash contaminated clothing and shoes before reuse.

##### In case of eye contact

Immediately flush eyes with plenty of water for two to three minutes. Remove any contact lenses and continue flushing for 15 minutes. If irritation continues, consult a physician.

##### If swallowed

Wash out mouth with water and keep at rest. Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see Section 2.2) and/or in Section 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available.

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## **5. FIRE FIGHTING MEASURES**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use fire-extinguishing media appropriate for surrounding materials.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides, halogenated hydrogen gas.

### **5.3 Advice for firefighters**

As in any fire, wear full protective clothing and equipment.

### **5.4 Further information**

No data available.

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## **6. ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours or mist. Evacuate personnel to safe areas.

### **6.2 Environmental precautions**

Do not let product enter drains, if safe to do so.

### **6.3 Methods and materials for containment and cleanup**

Construct temporary dikes of dirt or any appropriate readily available material to prevent spreading of the material. Cover with appropriate absorbent and sweep or shovel into an appropriate container.

### **6.4 Reference to other sections**

For protective clothing, see Section 8. For disposal, see Section 13.

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## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of aerosols. Provide adequate exhaust ventilation at places where aerosols are formed. For precautions, see Section 2.2. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

### **7.2 Conditions for safe storage**

Keep container tightly closed in a dry, cool, and well-ventilated place. Do not store with, or close to, strong acids.

### **7.3 Specific end uses(s)**

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

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## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **8.1 Control parameters**

#### **Components with workplace control parameters**

No PELs, TLVs, or OELs for this product or its ingredients are listed in the current issue of ACGIH's Guide to Occupational Exposure Values, nor have they been determined by the manufacturer.

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

### Personal protective equipment

#### Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

#### Skin protection

Handle with chemical-resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body protection

Impervious clothing. The type of protective equipment must be selected according to the amount of dangerous substance at the specific workplace.

#### Control of environmental exposure

Do not let product enter drains.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a)	Appearance	Form: aqueous liquid Color: translucent
b)	Odor	Odorless
c)	Boiling point	Approximately 100°C
d)	Freeze point	0°C
e)	Density	1.05 g/mL
f)	Flash point	Not flammable
g)	pH	Approximately 9
h)	Evaporation factor	Not determined
i)	Solubility	Soluble in water
j)	Vapor pressure	Not determined
k)	Oxidizing properties	Not determined
l)	Vapor density	Not determined
m)	Viscosity	Not determined

### 9.2 Other safety information

No data available.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Strong acids. Oxidizing materials.

## 10.2 Chemical stability

The product is stable under normal ambient conditions of temperature and pressure.

## 10.3 Possibility of hazardous reactions

Will not polymerize.

## 10.4 Conditions to avoid

Extreme cold.

## 10.5 Incompatible materials

Strong acids. Oxidizing materials.

## 10.6 Hazardous decomposition products

None.

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# 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

### Acute toxicity – oral

Based on available data the classification criteria are not met.

### Acute toxicity – dermal

Based on available data the classification criteria are not met.

### Acute toxicity – inhalation

Based on available data the classification criteria are not met.

### Skin corrosion/irritation

Skin irritant 2 – H315 Causes skin irritation.

### Serious eye damage/irritation

Eye irritant 2 – H319 May cause severe eye irritation.

### Respiratory sensitization

Based on available data the classification criteria are not met.

### Skin sensitization

Based on available data the classification criteria are not met.

### Germ cell mutagenicity

#### Genotoxicity – in vitro

Based on available data the classification criteria are not met.

#### Genotoxicity- in vivo

Based on available data the classification criteria are not met.

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

**Reproductive toxicity – fertility**

Based on available data the classification criteria are not met.

**Reproductive toxicity – development**

Based on available data the classification criteria are not met.

**Specific target organ toxicity – single exposure**

STOT SE 3 – H335 May cause respiratory irritation.

**Specific target organ toxicity – repeated exposure**

Based on available data the classification criteria are not met.

**Aspiration hazard**

Not anticipated to present an aspiration hazard, based on chemical structure.

**Additional information**

RTECS: Not available.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available.

### 12.2 Persistence and degradability

Presumed to be persistent.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment are not available as chemical safety assessment not required/ not conducted.

### 12.6 Other adverse effects

No data available.

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Product**

Dispose of at a supervised appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal.

**Contaminated packaging**

Contaminated containers should be cleaned and disposed of in the same manner as the product in accordance with applicable regulations.

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**14. TRANSPORT INFORMATION**

**DOT (US)**

Not dangerous goods.

**IMDG**

Not dangerous goods.

**IATA**

Not dangerous goods.

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**15. REGULATORY INFORMATION**

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

SAR 311/312: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 311/312.

**CERCLA (Comprehensive Response, Compensation, and Liability Act)**

Not Applicable.

**TSCA (Toxic Substance Control Act)**

The components of this product are in compliance with the chemical notification requirements of TSCA.

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**16. OTHER INFORMATION**

**HMIS Rating**

Health Hazard:	1
Chronic Health Hazard:	
Flammability:	0
Physical Hazard:	0

**NFPA Rating**

Health Hazard:	1
Fire Hazard:	0
Reactivity Hazard:	0

**MANUFACTURER DISCLAIMER:** Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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