

# **Material Safety Data Sheet**

## ★ SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers Product name : Tetrahydropyran-4-carboxylic acid REACH No. : Not available. CAS-No.: 5337-03-1

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

Laboratory chemicals, Manufacture of substances Details of the supplier of the safety data sheet **Company:** Banff Green Technologies, Inc. Address: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd., Minhang Dist., Shanghai 201100 CHINA Telephone/Fax: +86 21-54795870 E-mail address: sales@banffgt.com

## **1.3 Emergency telephone number**

Emergency Phone #: +86 21-61995660

## ★ SECTION 2: Hazards identification

#### **EMERGENCY OVERVIEW**

Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin.
Potential Health Effects
Eye:
Causes eye irritation. May cause chemical conjunctivitis.
Skin:
Causes skin irritation. Harmful if absorbed through the skin.
Ingestion:
Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation:
Harmful if inhaled. Causes respiratory tract irritation.

No information found.

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## **★** SECTION 3: Composition/information on ingredients

Synonyms: Tetrahydropyran-4-yl-carboxylic acid; Tetrahydro-2H-pyran-4-carboxylic acid; 4-tetrahydropyran-1h carboxylic acid; Tetrahydro-2H-pyran-4-yl-carboxylic acid Formula: C6H10O3 Molecular Weight: 130.14 CAS-No.: 5337-03-1 EC-No.:

## **★** SECTION 4: First aid measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Get medical aid. Wash mouth out with water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** 

Treat symptomatically and supportively.

## **★** SECTION 5: Firefighting measures

#### **General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

#### Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

## ★ SECTION 6: Accidental release measures

**General Information:** Use proper personal protective equipment as indicated in Section 8. **Spills/Leaks:** 

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills



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immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Provide ventilation.

## ★ SECTION 7: Handling and storage

#### Handling:

Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing.

Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

#### Storage:

Store in a cool, dry place. Store in a tightly closed container.

## ★ SECTION 8: Exposure controls/personal protection

#### **Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits CAS# 5337-03-1:** Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin:

Wear appropriate protective gloves to prevent skin exposure. Clothing:

Wear appropriate protective clothing to prevent skin exposure.

#### **Respirators:**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## ★ SECTION 9: Physical and chemical properties

Physical State: Solid
Color: white
Odor: Not available.
pH: Not available.
Vapor Pressure: Not available.
Viscosity: Not available.



Boiling Point: Not available. Freezing/Melting Point: 88-89 deg C Autoignition Temperature: Not available. Flash Point: Not available. Explosion Limits, lower: Not available. Explosion Limits, upper: Not available. Decomposition Temperature: Solubility in water: Specific Gravity/Density: Molecular Formula: C6H10O3 Molecular Weight: 130.14

## ★ SECTION 10: Stability and reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Dust generation.

Incompatibilities with Other Materials: Bases, amines, reducing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

## ★ SECTION 11: Toxicological information

RTECS#: CAS# 5337-03-1 unlisted. LD50/LC50: Not available. Carcinogenicity: Tetrahydro-2H-pyran-4-carboxylic acid - Not listed by ACGIH, IARC, or NTP.

## ★ SECTION 12: Ecological information

## ★ SECTION 13: Disposal considerations

Dispose of in a manner consistent with federal, state, and local regulations.

## ★ SECTION 14: Transport information

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Shipping Name: TOXIC SOLID, ORGANIC, N.O.S. Hazard Class: 6.1 UN Number: 2811 Packing Group: III

## IMO

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S. Hazard Class: 6.1 UN Number: 2811 Packing Group: III

## RID/ADR

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S. Hazard Class: 6.1 UN Number: 2811 Packing group: III

## ★ SECTION 15: Regulatory information

### **European/International Regulations**

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

#### **Risk Phrases:**

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

#### **Safety Phrases:**

S 22 Do not breathe dust.

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

## WGK (Water Danger/Protection)

CAS# 5337-03-1: No information available.

## Canada

None of the chemicals in this product are listed on the DSL/NDSL list. CAS# 5337-03-1 is not listed on Canada's Ingredient Disclosure List.

#### **US FEDERAL**

TSCA CAS# 5337-03-1 is not listed on the TSCA inventory. It is for research and development use only.