



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
HPR, Schedule 1

Revision date 30-Jun-2022

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Pentanoic-2,2,3,3-d4 Acid

### Other means of identification

**Product Code(s)** TRC-V914171-10MG

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory use

**Restrictions on use** No information available

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

#### Initial supplier identifier

Toronto Research Chemicals  
2 Brisbane Road  
Toronto, ON  
M3J 2J8

Emergency number: +1(416) 665-9696 between 0800-1700 (GMT-5)

Fax: +14166654439

Web: www.trc-canada.com

**E-mail** sds-request@lgcgroup.com

### Emergency telephone number

#### **Emergency Telephone**

For Hazardous Materials or Dangerous Goods Incident

Spill, Leak, Fire Exposure, or Accident

Call CHEMTREC:

USA & Canada 1-800-424-9300

Rest of the world +1 703-741-5970

## 2. Hazard identification

### Classification

Classification according to WHIMIS

Skin corrosion/irritation	Category 1 Sub-category B
Chronic aquatic toxicity	Category 3

### Label elements



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

## Danger

### Hazard statements

Classification according to WHIMIS  
Causes severe skin burns and eye damage  
Harmful to aquatic life with long lasting effects



### Precautionary Statements - Prevention

Do not breathe dust, fume, gas, mist, vapors and spray  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves, protective clothing, eye protection and face protection  
Avoid release to the environment

### Precautionary Statements - Response

Immediately call a POISON CENTRE or doctor

#### Eyes

Immediately call a POISON CENTRE or doctor  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

#### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]  
Wash contaminated clothing before reuse

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTRE or doctor

#### Ingestion

IF SWALLOWED: rinse mouth. Do NOT induce vomiting

### Precautionary Statements - Storage

Store locked up

### Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant

### Other information

No information available.

## 3. Composition/information on ingredients

### Substance

#### Formula

C5 H6 D4 O2



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Pentanoic-2,2,3,3-d4 Acid	1219804-71-3	90 - 100%	-	

## 4. First-aid measures

### Description of first aid measures

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).

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

<b>Symptoms</b>	Burning sensation.
-----------------	--------------------

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

<b>Note to doctors</b>	Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.
------------------------	---

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
-------------------------------------	---



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Pick up and transfer to properly labelled containers.

## 7. Handling and storage

### Precautions for safe handling

<b>Advice on safe handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.
--------------------------------	---

### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from
---------------------------	---



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

## 8. Exposure controls/personal protection

### Control parameters

#### **Exposure Limits**

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

### Appropriate engineering controls

#### **Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

#### **Eye/face protection**

Tight sealing safety goggles. Face protection shield. Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

#### **Hand protection**

Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

#### **Skin and body protection**

Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing.

#### **Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

#### **Environmental exposure controls**

Do not allow into any sewer, on the ground or into any body of water.

#### **General hygiene considerations**

Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Oily
<b>Colour</b>	colourless
<b>Odour</b>	unpleasant
<b>Odour threshold</b>	No information available



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	None known
Relative vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
<u>Other information</u>		
Explosive properties	No information available.	
Oxidising properties	No information available.	
Softening point	No information available	
Molecular weight	106.16	
VOC Content (%)	No information available	
Liquid Density	No information available	
Bulk density	No information available	

## 10. Stability and reactivity

### Reactivity

No information available.

### Chemical stability

Stable under normal conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to avoid

Exposure to air or moisture over prolonged periods.

### Incompatible materials

Acids. Bases. Oxidising agent.

**Hazardous decomposition products** None known based on information supplied.



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

Inhalation	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness.
Skin contact	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.
Ingestion	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. Burning. May cause blindness. Coughing and/ or wheezing.
----------	---

### Acute toxicity

#### Numerical measures of toxicity

No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye damage.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

## 12. Ecological information

Ecotoxicity	Harmful to aquatic life with long lasting effects.
Persistence and degradability	No information available.
Bioaccumulation	No information available.
Other adverse effects	No information available.

## 13. Disposal considerations

### Disposal methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

## 14. Transport information

### TDG

UN number or ID number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid)
Transport hazard class(es)	8
Packing group	II





# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

Special Provisions	16
Marine pollutant	NP.
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid), 8, II

## DOT

UN number or ID number	UN3265
Extended proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid)
Transport hazard class(es)	8
Packing group	II
DOT Marine Pollutant	NP.
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid), 8, II
Special Provisions	148, B2, IB2, T11, TP2, TP27
Emergency Response Guide Number	153

## MEX

UN number or ID number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid)
Transport hazard class(es)	8
Packing group	II
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid), 8, II
Special Provisions	274

## IATA

UN number or ID number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid)
Transport hazard class(es)	8
Packing group	II
ERG Code	8L
Special Provisions	A3, A803
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid), 8, II

## IMDG

UN number or ID number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid)
Transport hazard class(es)	8
Packing group	II
EmS-No	F-A, S-B
Special Provisions	274
Marine pollutant	NP
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s. (Pentanoic-2,2,3,3-d4 Acid), 8, II

## 15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

### International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable



# SAFETY DATA SHEET

TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid

Revision date 30-Jun-2022

The Rotterdam Convention Not applicable

## International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	Contact supplier for inventory compliance status.

## Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

## 16. Other information

<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 3	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

## Key or legend to abbreviations and acronyms used in the safety data sheet

### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AELG(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)



# SAFETY DATA SHEET

**TRC-V914171-10MG - Pentanoic-2,2,3,3-d4 Acid**

**Revision date** 30-Jun-2022

---

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 30-Jun-2022

**Revision Note** No information available.

**Disclaimer**

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

**End of Safety Data Sheet**