Preparation / Revision Date 9/27/2011

Expiry Date 9/25/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Name	Des[1-(4,4-difluorocyclohexanecarboxamido)-1-phenylpr hydroxymethyl Maraviroc	
Catalogue #	D288815	
Company	Toronto Research Chemicals 2 Brisbane Road Toronto, ON M3J 2J8	

CANADA +14166659696 Telephone +14166654439 FAX +14166659696 Emergency# orders@trc-canada.com Email

2. HAZARDS IDENTIFICATION

WHMIS Classification D2B

Toxic Material Causing Other Toxic Effects

Moderate skin irritant Moderate respiratory irritant Moderate eye irritant

HMIS Classification Health hazard: 2 Flammability: 0 Physical hazards: 0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.		
Skin	May be harmful if absorbed through skin. Causes skin irritation.		
Eyes	Causes eye irritation.		
Ingestion	May be harmful if swallowed.		

GHS Classification

Skin irritation (Category 2) Eye irritation (Category 2A) Specific target organ toxicity - single exposure, respiratory tract (Category 3) GHS Label elements, including precautionary statements Signal word Warning Hazard statement(s) H315 Causes skin irritation. H319 Causes serious eye irritation. May cause respiratory irritation. H335 Precautionary statement(s) P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. IF ON SKIN: Gently wash with plenty of soap and water. P302/P352 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if P305/P351/P338 present and easy to do. Continue rinsing.

GHS Label Pictogram



Bringing you products for innovative research.

Des[1-(4.4-difluorocvclohexanecarboxamido)-1-phenylpropyl]-3-

OH HN



3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula:	$C_{13}H_{22}N_4O$	
Molecular Weight:	250.34	
CAS Registry #:	856703-83-8	
EC#:	4-(3-Exo)-8-azabicyclo[3.2.1]oct-3-yl-5-(1-methylethyl)	
Synonyms:	-4H-1,2,4-triazole-3-methanol	

4. 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

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust or aerosol formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Toronto Research Chemicals - D288815

Avoid contact with skin and eyes. Avoid formation of dust or aerosols. Provide appropriate exhaust ventilation at places where dust/aerosol is formed. Normal measures for preventative fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store at -20°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with 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.

Eye 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 EN 166(EU).

Skin and body protection

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

Hygiene measures

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

Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Off white solid

Safety data

рН	N/A	Melting point	191-193°C
Boiling point	N/A	Flash point	N/A
Ignition temperature	N/A	Lower explosion limit	N/A
Upper explosion limit	N/A	Vapour pressure	N/A
Density	N/A	Water solubility	N/A

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid no data available

Materials to avoid Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Toronto Research Chemicals - D288815

Irritation and corrosion no data available

Reproductive toxicity

no data available

Additional Information RTECS: not listed

Carcinogenicity

IARC: To the best of our knowledge, this compound has not been identified as a possible or potential human carcinogen by IARC.

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

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

12. ECOLOGICAL INFORMATION

Toxicity no data available	Persistence and degradability no data available	Bioaccumulative potential no data available
Mobility in soil no data available	PBT and vPvB assessment no data available	Other adverse effects no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)/IMDG/IATA

Not dangerous goods

15. REGULATORY INFORMATION

DSL Status

Product is not on the Canadian DSL or NDSL list.

WHMIS Classification

D2B

Toxic Material Causing Other Toxic Effects

Moderate skin irritant Moderate respiratory irritant Moderate eye irritant

16. OTHER INFORMATION

Further information

Copyright 2010 Toronto Research Chemicals Inc. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is not to be deemed as all-inclusive and is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.

Toronto Research Chemicals - D288815