

Material Safety Data Sheet Version 4.2

Preparation / Revision Date 5/11/2012

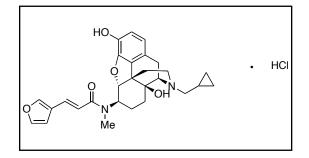
Expiry Date 5/10/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Name

Nalfurafine Hydrochloride

Catalogue #	N255600	
Company	Toronto Research Chemicals 2 Brisbane Road Toronto, ON M3J 2J8 CANADA	
Telephone	+14166659696	
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2. HAZARDS IDENTIFICATION

WHMIS Classification D1B

Toxic Material Causing Immediate and Serious Toxic Effects

Toxic by ingestion

HMIS Classification

Health hazard:2Flammability:0Physical hazards:0

Potential Health Effects

InhalationMay be harmful if inhaled. May cause respiratory tract irritation.SkinMay be harmful if absorbed through skin. May cause skin irritation.EyesMay cause eye irritation.IngestionHarmful if swallowed.

 GHS Classification

 Acute toxicity, Oral (Category 4)

 GHS Label elements, including precautionary statements

 Signal word
 Danger

 Hazard statement(s)

 H302
 Harmful if swallowed.

 Precautionary statement(s)

 P301/P310
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

GHS Label Pictogram



3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula: C₂₈H₃₃ClN₂O₅

CAS Registry #:	152658-17-8
EC#:	(2E)-N-[(5α,6β)-17-(Cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxymorphinan-6-yl]-3-
Synonyms:	(3-furanyl)-N-methyl-2-propenamide Hydrochloride; (-)-17-(Cyclopropylmethyl)-3,14 β - dihydroxy-4,5 α -epoxy-6 β -[N-methyl-trans-3-(3-furyl)acrylamido]morphinan Hydrochloride; Remitch; TRK 820;

4. FIRST AID MEASURES

Molecular Weight:

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.

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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

Precautions for safe handling

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

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, 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	>250°C (dec.)
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, hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 (oral - male rat) < 650 mg/kg LD50 (oral - female rat) 781 mg/kg LD50 (intramuscular - male rat) 246 mg/kg LD50 (intramuscular - female rat) 320 mg/kg

Irritation and corrosion

no data available

Sensitization

no data available

Carcinogenicity

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

Reproductive toxicity

no data available

Potential health effects

InhalationMay be harmful if inhaled. May cause respiratory tract irritation.SkinMay be harmful if absorbed through skin. May cause skin irritation.EyesMay cause eye irritation.IngestionHarmful if swallowed.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: UC6317000

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

D1B

Toxic Material Causing Immediate and Serious Toxic Effects

Toxic by ingestion

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.