

October 25, 1999

MATERIAL SAFETY DATA SHEET

[CAUTION: The identity of this substance is proprietary to Starks Associates, Inc. and to National Institute of Allergy and Infectious Diseases]

-----IDENTIFICATION-----

Chemical Name: 3-Isoquinolinecarboxamide, N-(1,1-dimethylethyl)-
decahydro-2-[(2R,3R)-2-hydroxy-3-[(3-hydroxy-2-
methylbenzoyl)amino]-4-(phenylthio)butyl]-,
(3S,4aS,8aS)-

Other Name: Nelfinavir

Starks Reference No: ND20-110-3

Chemical Formula: $C_{32}H_{45}N_3O_4S$

-----CAS REGISTRY NUMBER(S)-----

CAS#: 159989-64-7

-----HEALTH HAZARD DATA-----

RTECS # NW6995666

-----PRIMARY ROUTE(S) OF ENTRY (Accidental Exposure)-----

No applicable information was found; prevent all accidental exposure to skin, eyes, or lungs.

-----PHYSICAL AND CHEMICAL CHARACTERISTICS-----

White solid; melting range 192-195°C; soluble in methanol or ethanol; slightly soluble in EtOAc; insoluble in diethyl ether.

-----PHYSICAL HAZARDS-----

No applicable information was found; as with most organic powders, dust explosion may be possible when powder is suspended in air.

-----EXPOSURE LIMIT-----

No specifically applicable information was found; advisable to avoid exposure to skin, eyes or lungs.

-----NTP, IARC, OSHA-----

No entries were found. To the best of our knowledge, the potential carcinogenic properties of this material are not known.

-----PRECAUTIONS FOR SAFE HANDLING-----

This product should be handled only by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of many compounds are not yet well defined.

Appropriate Hygiene Practices

Avoid personal contact through ingestion, inhalation, contact with eyes or skin.

Protective Measures During Repair or Maintenance of Contaminated Equipment

No applicable information was found.

Steps to be taken if material is released or spilled

Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.

Sweep up, place in a bag and hold for waste disposal.

Avoid raising dust.

Ventilate area and wash spill site after material pickup is complete.

Waste disposal method

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state & local laws.

-----CONTROL MEASURES-----

Engineering Controls

Mechanical exhaust required.

Personal Protective Equipment

Safety glasses or chemical safety goggles.
Impermeable gloves and lab coat. NIOSH/MSHA
approved respirator may be advisable.

-----EMERGENCY AND FIRST AID PROCEDURES-----

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

In case of contact, immediately wash skin with soap and copious amounts of water.

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

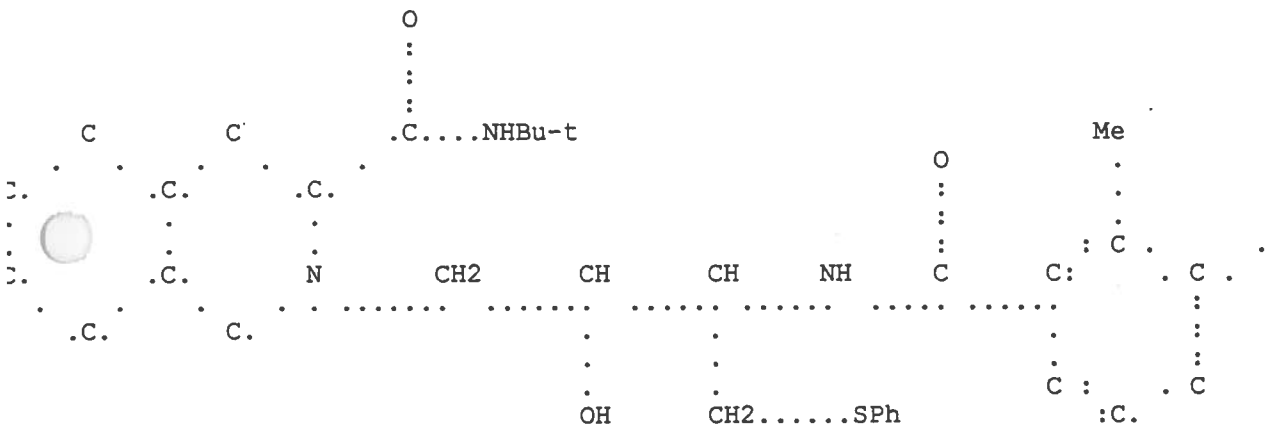
Call a physician.

Wash contaminated clothing before reuse or discard.

Information contained herein is based upon observations made in the course of resynthesizing this substance and other information available to us. We have undertaken no tests to confirm the accuracy or completeness of this information and assume no responsibility in this regard.

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L2 ANSWER 1 of 1 RTECS COPYRIGHT 1999 DOC
 CAS Registry Number (RN): ***159989-64-7*** RTECS
 RTECS Number (RTN): NW6995666
 Molecular Formula (MF): C32 H45 N3 O4 S
 Formula Weight (FW): 567.86
 Chemical Name (CN): 3-Isoquinolinecarboxamide, N-(1,1-dimethylethyl) decahydro-2-(2-hydroxy-3-((3-hydroxy-2-methylbenzoyl)amino)-4-(phenylthio)butyl)-, (3S-(2-(2S*,3S*),3-alpha,4a-beta,8a-beta))-; Nelfinavir
 Entry/Update Date (DATE): Mar 1999
 Character Count: 472



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STEREO DIAGRAM AVAILABLE WITH GRAPHICS TERMINAL OR OFFLINE PRINT

TOXICITY DATA (TOX):

Route	Organism	Dose	Source
RTE	ORGN	DOSE	SO
oral	rat	LD >5 g/kg	TOXID9
			42, 55, 1998

TOXICITY DATA REFERENCES:
 TOXID9 Toxicologist (Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311) V.1- 1981-