



8210 N. Austin Avenue, Morton Grove, IL 60053-3205, U.S.A.
 847-967-6000 800-323-8144
 (Monday - Friday: 7:30 a.m. - 4:00 p.m. CST)

Emergency Contact:
 INFOTRAC 800-535-5053 [U.S.A.]

Name: O-p-Nitrobenzyl-N,N'-diisopropylisourea or PNBDI
 Code: 1-510117-200, 1-510117-500

.....**SAFETY DATA SHEET**.....

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY.....

- 1.1 Product Identifier
 - Name O-p-Nitrobenzyl-N,N'-diisopropylisourea or PNBDI
 - Code 1-510117-200, 1-510117-500
- 1.2 Use of Substance/Mixture
 - Use Analytical Reagent for Liquid Chromatography
- 1.3 Details of Manufacturer/Supplier
 - Company Regis Technologies, Inc.
 8210 N. Austin Avenue
 Morton Grove, IL 60053
 847-967-6000; 800-323-8144 (toll free)
 Email: cservice@registech.com
 www.registech.com
- 1.4 Emergency Telephone
 - INFOTRAC 800-535-5053 [U.S.A.]

SECTION 2 HAZARDS IDENTIFICATION.....

- 2.1 Classification of the Substance or Mixture
 - GHS Classification

Acute Toxicity - Oral	Category 3	H301
Acute Toxicity - Dermal	Category 3	H311
Acute Toxicity - Inhalation	Category 3	H331

GHS Label Elements
 Pictograms or hazard symbols



Signal Word Danger

Hazard Statements
 H301+H311+H331-Toxic if swallowed, in contact with skin, or inhaled.

Precautionary Statements
 P260-Do not breathe dust.
 P280-Wear protective gloves/eye protection/face protection.
 P301+P330+P331-IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353-IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340-IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P314-Get medical advice/attention if you feel unwell.
 P402+P403-Store in a dry, well-ventilated place.
 P404+P405-Store in a closed container and locked up.
 P501-Dispose of contents/ container to an approved waste disposal plant.
 Store at 0-4°C for long storage.

Some abbreviations used throughout this MSDS: NA=not applicable; NE=not established; U=unknown/unavailable; NL=not listed; N=no; Y=yes.



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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name O-p-Nitrobenzyl-N,N'-diisopropylisourea or PNBDI
 Synonyms 1,3-diisopropyl-2-(p-nitrobenzyl)isourea; N,N'-Diisopropyl-O-(4-nitrobenzyl)isourea;
 Carbamimidic acid, N,N'-bis(1-methylethyl)-, (4-nitrophenyl)methyl ester

Hazardous components

Component	Classification	Concentration
1,3-diisopropyl-2-(p-nitrobenzyl)isourea	Acute Tox. Orl 3; Acute Tox. Drm 3; Acute Tox. Ihl 3; H301; H311; H331	≥ 97.0 %
CAS No. 2978-11-2		
EC No. 221-027-6		
Formula C ₁₄ H ₂₁ N ₃ O ₃		
Molecular Mass 279.3		

For full test of the H-Statements mentioned in this Section, see Section 16.

SECTION 4 FIRST AID MEASURES

- 4.1 Description of first aid measures
 General: Get medical advice/attention if you feel unwell.
 Eye contact: Rinse eyes with plenty of water for at least 15 minutes; lift eyelids occasionally. If irritation persists, consult physician.
 Skin contact: Immediately remove contaminated clothing and shoes, then wash skin with soap and plenty of water. If irritation persists, consult physician.
 Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and keep person warm and at rest. Consult physician.
 Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
 Physician note: Symptomatic and supportive care. There is no specific antidote.
- 4.2 Most important symptoms and effects, both acute and delayed.
 No data available
- 4.3 Indication of immediate medical attention and special treatment needed.
 No data available

SECTION 5 FIRE-FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media
 Dry chemical, water spray, alcohol-resistant foam, or carbon dioxide.
- 5.2 Specific hazards arising from the chemical.
 Water spray may be used to cool fire-exposed containers. Emits toxic fumes under fire conditions.
 Produces carbon oxides, and/or nitrogen oxides upon combustion.
- 5.3 Advice for fire-fighters
 Wear personal protective equipment for organic dust conditions. Wear self-contained breathing apparatus (SCBA) if necessary.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment, and emergency procedures
 For non-emergency personnel - Do not breath dusts. Avoid material contact. Evacuate unnecessary personnel from area, observe emergency procedures, consult an expert.
- For emergency responders – Protective equipment for organic dust conditions. See Section 8.3.



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- 6.2 Environmental precautions
Prevent material from entering drains.
- 6.3 Methods of clean up
Evacuate unnecessary people from area. Isolate spilled material.
Ventilate area. Eliminate all ignition sources. Use spark proof tools.
If in solution, mix with sand or similar inert adsorbent material or spill pillow.
Sweep up solids, seal in appropriate hazardous waste container, and hold for proper waste disposal.
Keep out of water supplies and sewers. Wash spill site after material pickup is complete.

SECTION 7 HANDLING AND STORAGE

- 7.1 Safe Handling Precautions
Wear suitable protective equipment to avoid contact with skin, eyes, or inhalation of organic dust.
Wash thoroughly after handling. Immediately remove contaminated clothing.
Handle in a dry, well ventilated area. Use local exhaust if dust can be generated.
Keep away from ignition sources.
- 7.2 Storage Conditions
Store in a tightly sealed container. Store in a cool, dry place suitable for toxic organic materials. Protect from heat, ignition sources, and/or strong oxidizing materials. Store at 0-4°C for long storage.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Control parameters
Exposure limits No data available
Environmental Do not empty into drains.
- 8.2 Appropriate engineering controls
Safety shower and eye wash
Local exhaust and mechanical ventilation required. Hood recommended. Fume scrubber.
- 8.3 Personal protection
Eye/Face Chemical safety eyewear or goggles
Hand Compatible chemical-resistant gloves: Rubber (e.g., natural rubber, neoprene, nitrile, or equivalent), Silver Shield®, Viton®
Respiratory NIOSH/MSHA or European Standard EN 149 approved respirator for organic dust and mists if exposure limits are exceeded or irritation or other symptoms are experienced.
Dermal (not hand) Protective Clothing (e.g., lab coat)--flame retardant anti-static material recommended.
Hygiene Avoid inhalation, ingestion; contact with eyes, skin, and clothing; and prolonged or repeated exposure.
Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated footwear if it cannot be cleaned.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on physical and chemical data

Chemical Formula	C ₁₄ H ₂₁ N ₃ O ₃
Molecular Weight	279.3
Form	solid
Appearance	yellow crystals or powder
Odor	No data available
Odor threshold	No data available
pH	No data available
Melting/freezing point	38-43°C (100-109°F) (dec)
Boiling point:	No data available

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Flammability (liquid, solid)		
Flash Point	No data available	Method: No data available
Flammable limits (%v/v)	LEL (lower explosive limit)	No data available
	UEL (upper explosive limit)	No data available
Autoignition temperature	No data available	
Decomposition temperature	No data available	
OSHA Flammability Class	No data available	
Evaporation Rate (BuAc = 1.0)	No data available	
Vapor pressure (mmHg)	No data available	
Vapor density (air=1):	No data available	
Relative density (g/cm ³)	No data available	
Water Solubility	slightly soluble	
Water reactive	No	
Solubility (other)	No data available	
Partition coefficient: N-octanol/water	No data available	
Viscosity	No data available	

SECTION 10 STABILITY AND REACTIVITY

- 10.1 Reactivity
Stable.
- 10.2 Chemical Stability
Stable if stored under conditions described in above Section 2 and/or Section 7.
- 10.3 Possibility of hazardous reactions
No data available
- 10.4 Conditions to avoid
Avoid incompatibilities.
Protect from heat and ignition sources.
Keep out of water supplies and sewers.
- 10.5 Incompatible materials
Strong oxidizers
Heat
- 10.6 Hazardous decomposition products
Combustion carbon oxides, nitrogen oxides

SECTION 11 TOXICOLOGICAL INFORMATION.....

11.1 Toxicological Information	
Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory irritation	No data available
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
IARC	No data available
NTP	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available
RTECS Number	No data available

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11.2 Further Information

Potential health effects

Eye	No data available
Skin	No data available
Inhalation	No data available
	Symptoms: No data available
Ingestion	No data available
Symptoms	See above route. Pre-existing conditions that may be aggravated: No data available
Miscellaneous	This material is toxic if swallowed, in contact with skin, or inhaled.

SECTION 12..... **ECOLOGICAL INFORMATION**.....

Ecotoxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Motility in soil	No data available
Other adverse effects	No data available
General Notes	Do not empty into drains or water courses.

SECTION 13..... **DISPOSAL CONSIDERATIONS**.....

13.1 Disposal methods

U . S. EPA Waste Codes	No data available.
Waste Characterization (per U. S. regulations)	RCRA Hazard Class (40CFR 261): No data available. Generator is responsible for proper waste characterization. NOTE: U. S. Federal and state hazardous waste regulations may differ considerably.
Waste Disposal	That which cannot be recovered or recycled, should be disposed of in accordance with all applicable international, national, regional, state, and local laws. Do NOT dump into any sewer, on ground, or into any body of water.

SECTION 14..... **TRANSPORT INFORMATION**.....

14.1 UN number	UN 2811
14.2 UN proper shipping name	Toxic solids, n.o.s. (O-p-Nitrobenzyl-N,N'-diisopropylisourea or PNBDI)
14.3 Transport Hazard Class	6.1
14.5 Packing group	PG II
14.6 Environmental hazards	Not applicable
14.6 Special precautions for user	See Section 8 for exposure/personal protection guidance.

SECTION 15..... **REGULATORY INFORMATION**.....

15.1 Safety, health and Environmental regulations specific for the product in question.

NFPA: H4 F0 R0 HMIS: H4 F0 PH0

15.2 Chemical Inventory Lists

Reviews, Standards, and Regulations

.....	O-p-Nitrobenzyl-N,N'-diisopropylisourea
CAS number.....	2978-11-2
TSCA:.....	Y
This compound is sold strictly for FDA or research and development use.....	
EINECS:.....	Y
Number.....	221-027-6
CERCLA [Section 103 (40 CFR 302.4)]:.....	NL
RQ (lbs).....	NA
RCRA Waste Code.....	NA

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 CAS number.....2978-11-2
 OSHA Process Safety [29 CFR 1910.119]:..... NL
 TQ (lbs)..... NA
 Clean Air Act
 [Section 112r (40 CFR 68)]:..... NL
 TQ (lbs)..... NA
 Contains Ozone Depleters (Class I or Class II)..... N
 SARA Title III Notification [40 CFR 302.4]:
 Section 302/304 (EHS) Ingredient
 [40 CFR 355.3]..... NL
 TPQ (lbs)..... NA
 RQ (lbs)..... NA
 Section 313 Ingredient [40 CFR 372.65]..... NL
 SARA Hazards Acute..... Y Chronic..... N Fire.....N Pressure N ReactivityN
 State Lists:..... NL
 States NL
 On CA 65 Significant Risk Level..... NL

SECTION 16 **OTHER INFORMATION**.....

16.1 Full test of H-Statements referred to under Section 2 and 3.

Acute Tox.	Acute Toxicity
Drm	Dermal
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
Ihl	Inhalation
Orl	Oral

The above information is believed to be correct to the best of our present state knowledge, but does not purport to be all-inclusive and shall be used only as a guide. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.

Prepared by: Regis Technologies

This is the last page of this MSDS.