



NORLAND PRODUCTS INCORPORATED

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SAFETY DATA SHEET

For Emergency:

Telephone (609) 395-1966

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1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

TRADE NAME: **Norland Optical Adhesive 170F**

TRADE CODE: **NOA 170F**

PRODUCT USE: Ultraviolet Curing Adhesive

MANUFACTURER &

SUPPLIER: **NORLAND PRODUCTS INC**

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Suite 20

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2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture GHS-US Classification

Acute Oral Toxicity: Cat. 4

Skin Sensitization: Cat. 1A

Eye Damage/Irritation: Cat. 2A

Pictogram



Signal Word: Warning

2.2 Label Elements GHS-US Labeling

Hazard Statements (GHS-US)

H302 Harmful if Swallowed

H315 Causes Skin Irritation

H317 May Cause an Allergic Skin Reaction

H319 Causes Serious Eye Irritation

Precautionary Statements:

P301+ P317 If Swallowed: Get medical help

P305+P351+P338: If In Eyes: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek Medical Attention.

P333+P313 If Skin Irritation / Rash Occurs: Get medical help

P302+P352 If on skin, wash with plenty of water

P280 Wear Protective Gloves/protective clothing/eye protection/face protection

P272 Contaminated work clothing should not be allowed out of work place

P501 Dispose of contents/container in accordance with local, regional, national and international regulations

Other Hazard: None Known

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Nature: Acrylate related resin based formulation

<u>Composition:</u>	<u>Cas#:</u>	<u>Content:</u>	<u>GHS-US Classifications for All Chemicals</u>
Acrylated Resin	Trade Secret	40-60%	H302 Cat. 4 Harmful If Swallowed H315 Cat. 2 Causes Skin Irritation
Acrylic Monomer	Trade Secret	10-20%	H317 Cat. 1A Skin Sensitization H319 Cat 2A Causes Serious Eye Irritaion
Aromatic Monomer	Trade Secret	10-20%	
Zirconium Dioxide	314-23-4	10-25%	

4. FIRST AID MEASURES **First Aiders should wear gloves/protective clothes & eye/face protection**

In Case of Inhalation: If tightness in the chest, irritation, or coughing occurs, remove to fresh air. Get Medical attention if symptoms persist.

In Case of Splashes in Eye: If the material gets in the eyes, immediately wash the eyes with copious amounts of water, occasionally lifting the lower and upper eyelids. Continue for 15 minutes and get Medical attention immediately.

In Case of Skin Contact: If the material gets on the skin, immediately wash the area with soap and water and flush with water. If irritation develops, get Medical attention.

In Case of Clothes Splattering: Discard or wash contaminated clothing before reuse.

In Case of Ingestion: If material has been swallowed, dilute with milk or water if the victim is alert. See doctor as soon as possible.

First Aiders should wear gloves, protective clothing, eye/face protection if there is a potential for exposure to Liquid product.

5. FIRE-FIGHTING MEASURES

Extinguishing Media Recommended: Carbon Dioxide, foam, dry chemical

Extinguishing Media Inadvisable: Water. Jets of Water from fire hose

Special Hazards: None

Hazardous Decomposition/Combustion Products: Could generate carbon monoxide, carbon dioxide

Special Protection Equipment: A Self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Measures For Personal Safety:

- GLOVES: Use gloves made from an impervious material (e.g. nitrile, butyl, or latex rubber) latex rubber may soften and become pervious if also exposed to organic solvents
- RESPIRATOR: Not required under normal operating conditions. Respiratory protection may be needed in unusual circumstances where significant exposure to fumes or mists can occur. A NIOSH approved air purifying respirator with an organic vapor cartridge would be recommended. Use must comply with OSHA (29 CFR 1910.134) and other regulatory standards.
- EYE: Wear Safety Glasses
- FOOTWEAR: Impervious shoes (e.g. leather, not cloth or sandals)

Ventilation Requirements:

A Fume Hood is not generally required. The room should have adequate ventilation to avoid potential for concentration of mist or vapors.

Environmental Measures:

Stop the product from entering the drainage system and the natural environment. Limit leakage with Earth.

Cleaning Methods:

Recovery: Absorb material with paper towel or other absorbent. Place in container for disposal. If possible, expose absorbed resin to UV light or sunlight to solidify resin.

Cleaning/Decontamination: Clean up with soap and water

Elimination: Eliminate according to local and national regulations

7. HANDLING AND STORAGE

Handling:

- Technical Measures: Do not reuse container. This product is for Industrial use only. Practice good housekeeping and vigorous personal hygiene to minimize contact with material.
- Precautions to Take: Avoid Contact with skin and eyes
- Storage: Store at 20°C to 25°C Keep away from Sunlight – Do not Refrigerate

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Precautionary Measure: None

Exposure Limits: None

Protective Personal Equipment:

- Respiratory: Not needed with normal use
- Protection for hands: Use gloves made from an impervious material (e.g. nitrile, butyl or latex rubber. Latex rubber may soften and become pervious if also exposed to organic solvents.
- Eye Protection: Wear Safety Glasses
- Protection from Skin: Wear Clothing that provides protection to skin

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Color:	Clear Liquid
Odor:	Slight Acrylate Odor
pH:	No Data Available
Melting Point:	No Data Available
Boiling Point:	No Data Available
Decomposition Temperature:	>300°C
Flash Point:	175°C
Auto Ignition Temperature:	No Data Available
Explosive Properties:	None
Oxidizing Properties:	None
Vapor Pressure:	<0.1 @ 20°C
Density:	>1
Solubility/Miscibility:	
Solubility in Water:	Not miscible
Viscosity:	800-900 CPS @ 25°C

10. STABILITY AND REACTIVITY

Conditions to Avoid:	Keep away from UV and Sunlight. Temperatures above 65°C may cause exothermic non-hazardous polymerization.
Substances to Avoid:	None
Hazardous Decomposition Products:	None

11. TOXICOLOGICAL INFORMATION

Potential health effects

Irritating to eyes and skin

Acute Toxicity Data

Oral	300 mg/kg<LD50<2000 mg/kg, rat
Dermal	No data
Inhalation	No data
Skin Corrosion/Irritation	Slightly irritant (P.I.I 0.4)
Serious Eye Damage/Irritation	Non irritating
Respiratory Sensitization	No data
Skin Sensitization	Sensitization
Carcinogenicity	No data
Germ cell mutagenicity	Negative
Reproductive toxicity	No data
Specific target organ toxicity	No data
Aspiration hazard	No data

12. ECOLOGICAL INFORMATION

Ecotoxicity	LC50 96h, 15.8 mg/L, Oryzias latipes EC50 48h, 16.8 mg/L, Daphnia magna ErC50 72h, 31.7 mg/L, Pseudokirchneriella subcapitata NOEC 72h, 1.02 mg/L
Persistence and degradability	>60% 28 days, Readily biodegradable
Bioaccumulative potential	No data
Mobility	No data
Other adverse effects	No data

13. DISPOSAL CONSIDERATION

Dispose of contents/containers in accordance with the local and national regulations

14. TRANSPORTATION INFORMATION

International Regulations:

IATA-DGR UN/ID No. UN 3082 Environmentally Hazardous Substance: liquid Class 9
Packing Group: III , low danger (z),
Packing Instruction: (cargo aircraft): 964 (passenger aircraft): 964

IMDG-Code UN number: UN 3082 Environmentally Hazardous Substance:
liquid packing group III, low danger (z)

15. REGULATORY INFORMATION

Contains:

Acrylate related adhesives

US Federal Regulations

Unless otherwise noted, this product is in compliance with the inventory listing of the
Countries shown below:

Europe (EINECS/ELINCS)	Listed/Registered
USA (TSCA)	Listed/Registered
Canada (DSL)	Listed/Registered
Australia (AICS)	Listed/Registered
Japan (MITI)	Listed/Registered
Korea (TCCL)	Listed/Registered
Philippines (PICCS)	Listed/Registered
China	Listed/Registered

16. OTHER INFORMATION

Custom Situation: Harmonized System (HTS/Schedule B) 3506.91.0000

Last Revision: July 11, 2024

Latest Revision: November 12, 2024

The information included in this Safety Data Sheet is correct to the best of Our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the test.