ELECTRONIC MATERIALS
ROHM HAAS

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

INTERVIA(TM)3D-N PHOTORESIST

Revision date: 08/10/2006

Supplier Rohm and Haas Electronic Materials LLC
455 Forest Street
Marlborough, MA 01752 United States of America

For non-emergency information contact: 508-481-7950

Emergency telephone number

Chemtrec	800-424-9300
Rohm and Haas Emergency	215-592-3000

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Water	7732-18-5	> 70.0 %
Ethyl acrylate	140-88-5	< 0.1 %
Acrylate ester		< 5.0 %
Electronic grade propylene glycol monomethyl ether	107-98-2	< 2.0 %
Dye Compound		< 10.0 %

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance

Form	liquid
Colour	blue
Odour	Acrylate

Hazard Summary

CAUTION!
May cause allergic respiratory reaction and/or skin reaction.
Prolonged, repeated contact, inhalation, ingestion, or absorption through the skin, may cause adverse effects to internal organ systems.
Possible birth defect hazard.

Ingestion: Wash out mouth with water. Have victim drink 1-3 glasses of water to dilute stomach contents. Induce vomiting if person is conscious. Immediate medical attention is required Never administer anything by mouth if a victim is losing conciousness, is unconcious or is convulsing.

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point	>93 °C (199 °F)
Lower explosion limit	No data available
Upper explosion limit	No data available
Suitable extinguishing media:	Use water spray, foam, dry chemical or carbon dioxide. Keep containers and surroundings cool with water spray.

Specific hazards during fire fighting: This product may give rise to hazardous vapors in a fire. Vapors can travel a considerable distance to a source of ignition and result in flashback.

Special protective equipment for fire-fighters: Wear full protective clothing and self-contained breathing apparatus.

Further information: Pressure may build up in closed containers with possible liberation of combustible vapors.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Wear suitable protective clothing.
Wear respiratory protection.
Eliminate all ignition sources.

Environmental precautions
Prevent the material from entering drains or water courses.
Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Methods for cleaning up
Contain spills immediately with inert materials (e.g., sand, earth).
Transfer into suitable containers for recovery or disposal.
Finally flush area with plenty of water.

7. HANDLING AND STORAGE

Handling
Use local exhaust ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Wash thoroughly after handling.
Further information on storage conditions: Proprietary photoresist film is composed of acrylate copolymers. Unexposed photoresist contains acrylate monomers, which are skin irritants. Keep away from heat, sparks, flame, and other sources of ignition.

Storage

Storage conditions: Store in original container. Keep away from heat and sources of ignition. Storage area should be: cool dry well ventilated out of direct sunlight

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value
Ethyl acrylate	ACGIH	TWA	20 mg/m3 5 ppm
	ACGIH	STEL	61 mg/m3 15 ppm
	OSHA_TRANS	PEL	100 mg/m3 25 ppm
	OSHA_TRANS	SKIN_DES	
	Z1A	TWA	20 mg/m3 5 ppm
	Z1A	STEL	100 mg/m3 25 ppm
	Z1A	SKIN_FINAL	
	Rohm and Haas	TWA	5 ppm
	Rohm and Haas	STEL	15 ppm
	Rohm and Haas	Absorbed via skin	

Component	Regulation	Type of listing	Value
Electronic grade propylene glycol monomethyl ether	Rohm and Haas	TWA	30 ppm
	Rohm and Haas	STEL	90 ppm
	Rohm and Haas	Absorbed via skin	

Eye protection: goggles

Hand protection: Butyl rubber gloves. Other chemical resistant gloves may be recommended by your safety professional.

Skin and body protection: Normal work wear.

Respiratory protection: Respiratory protection if there is a risk of exposure to high vapor concentrations. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Engineering measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust). and control of process conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	blue
Odour	Acrylate
pH	3.5 - 4.0
Boiling point/range	104 °C (219 °F)

Flash point	>93 °C (199 °F)
Lower explosion limit	No data available
Upper explosion limit	No data available

Component: **Ethyl acrylate**
Vapour pressure 5.1461 kPa at 25 °C (77 °F)

Component: **Electronic grade propylene glycol monomethyl ether**
Vapour pressure 10.9 mmHg

Relative vapour density	Heavier than air.
Water solubility	emulsifiable
Relative density	ca.1.01
Evaporation rate	Slower than ether
VOC's	25 g/l

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Hazardous reactions	Stable under normal conditions.
Conditions to avoid	High temperatures Static discharge
Materials to avoid	Oxidizing agents bases acids
Hazardous decomposition products	Carbon monoxide, carbon dioxide, oxides of sulfur, nitrogen oxides (NOx), morpholine, acrylates,
polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Component: **Ethyl acrylate**
Acute oral toxicity LD50 rat 1,120 mg/kg

Component: **Electronic grade propylene glycol monomethyl ether**
Acute oral toxicity LD50 rat 6,600 mg/kg

Component: **Electronic grade propylene glycol monomethyl ether**
Acute inhalation toxicity LC50 rat 7,000 mg/m3

Component: **Ethyl acrylate**
Acute dermal toxicity LD50 rabbit 1,800 mg/kg

Component: **Electronic grade propylene glycol monomethyl ether**
Acute dermal toxicity LD50 rabbit 13,000 mg/kg

Component: **Electronic grade propylene glycol monomethyl ether**

Toxicity to reproduction

Dermal teratology testing of this solvent (with less than 3% beta isomer) revealed no maternally toxic, teratogenic or fetotoxic responses in rats or rabbits exposed to concentrations of 1,000 and 2,000 mg/kg per day.

No toxicity to reproduction.

Component: **Electronic grade propylene glycol monomethyl ether**

Mutagenicity

No significant mutagenic response was observed and the carcinogenic potential of the material is therefore considered to be low.

12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Electronic grade propylene glycol monomethyl ether

Ecotoxicity effects

Toxicity to fish	LC50 Fathead minnow (Pimephales promelas) 96 h 20800 ppm
Toxicity to algae	EC50 Algae 168 h >1000 ppm
Toxicity to aquatic invertebrates	EC50 Daphnia magna 48 h 23300 ppm

13. DISPOSAL CONSIDERATIONS

Environmental precautions: Prevent the material from entering drains or water courses.
Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Disposal

Dispose in accordance with all local, state (provincial), and federal regulations. Incineration is the recommended method of disposal for containers. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

IMO/IMDG

Not regulated (Not dangerous for transport)

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations

15. REGULATORY INFORMATION

SARA TITLE III: Section 311/312 Categorizations (40CFR370): Immediate health hazard
Delayed (chronic) Health Hazard

SARA TITLE III: Section 313 Information (40CFR372)
This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D):
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
This product contains the following substance(s)which are subject to Section 12(b) export notification:
TSCA_12B Components: Methoxyphenol 150-76-5

US. Toxic Substances Control Act (TSCA) All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

California (Proposition 65)
This product contains a component or components known to the state of California to cause cancer and/or reproductive harm.
Components: Ethyl acrylate 140-88-5

16. OTHER INFORMATION

Hazard Rating

	Health	Fire	Reactivity
NFPA	2	0	0

Legend

ACGIH	American Conference of Governmental Industrial Hygienists
BAc	Butyl acetate
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
STEL	Short Term Exposure Limit (STEL):
TLV	Threshold Limit Value
TWA	Time Weighted Average (TWA):
|	Bar denotes a revision from prior MSDS.

The information provided 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 a guidance for 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 text.

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