

MATERIAL SAFETY DATA SHEET

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Product name: Optilux™ Coupler 100

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Name : Bis(trimethoxysilylpropyl)amine

Common names : Silane solution
Manufacturer's name : International Coatings Company, Inc.
Address : 13929 East 166th Street Cerritos, CA 90702-7666
Emergency phone : (800) 255-3924 Name of preparer : A. Nucup
Business phone : (562) 926-1010 Date prepared : 02/10/09
Supersedes dated : 02/06/06 Date printed :

2. SECTION II INGREDIENT INFORMATION

Chemical name:	CAS No.	Concentration
Bis(trimethoxysilylpropyl)amine	82985-36-1	<5.00 %
Phthalate Plasticizer	68515-40-2	95-98 %

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER! HARMFUL OR FATAL IF SWALLOWED.
CAUSES EYE BURNS.
MAY CAUSE EYE DAMAGE AND BLINDNESS IF SWALLOWED.
CAUSES SKIN IRRITATION.
MAY CAUSE DIZZINESS AND DROWSINESS.
MAY CAUSE HEART MUSCLE DAMAGE.
MAY CAUSE LIVER AND KIDNEY DAMAGE.

4. FIRST AID MEASURES

Swallowing

Do not induce vomiting. Do not give anything to drink. Obtain medical attention immediately.

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Skin

Immediately remove contaminated clothing and shoes. Wash skin with soap and water. Obtain medical attention. Wash clothing before re-use. Discard contaminated leather articles such as shoes and belt.

Inhalation

No emergency care anticipated.

Eye contact

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

Notes to physician

This product reacts with moisture in the acid contents of the stomach to form methanol and possibly a solid obstructing bolus. The combination of visual disturbances, metabolic acidosis, and formic acid in the urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 ml per hour) allows it to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated by means of intravenous sodium bicarbonate, and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance. Folates may be administered to enhance the metabolism of formaldehyde. 4-Methyl pyrazole has been suggested as an antidote: because of its alcohol dehydrogenase inhibiting effects, it reduces the production of formate and the development of metabolic acidosis. However, the value of this antidote remains to be proven in humans.

5. FIRE-FIGHTING MEASURES

Flash point: 112°C (235 °F)

Flammable limits

Lower limit: Not available

Upper limit: Not available

Special fire fighting procedures

Do not direct a solid stream of water or foam into hot, burning pools: this may cause frothing and increase fire intensity.

Special protective equipment for firefighters

Self-contained breathing apparatus. Body covering protective clothing.

Extinguishing media

Suitable: Large fires:

- alcohol-type foam or universal-type foams Small fires:

-CO₂

- dry chemical

Unsuitable: None.

Unusual fire and explosion hazards

None known.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid contact with eyes and skin. Avoid contact with liquid and vapors. Wear suitable protective equipment.

Environmental precautions

Prevent runoff.

Methods for cleaning up

Cover with absorbent or contain.
Collect for disposal.
Observe government regulations.

7. HANDLING AND STORAGE

HANDLING

Handling precautions

Do not swallow. Do not get in eyes, on skin, on clothing. Avoid breathing vapor, aerosol and mist. Use with adequate ventilation. Wash thoroughly after handling.

Other precautions

DANGER! Harmful or fatal if swallowed due to methanol production in the stomach.

STORAGE

Storage requirements

Keep away from heat and flame. Keep container closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTION

Respiratory protection

None expected to be needed.

Hand protection / protective gloves

Recommended order of use:

4H

Butyl

Neoprene

Nitrile (NBR)

PVC-coated

Eye protection

Monogoggles

Skin protection

Chemical protective clothing.

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Other protective equipment

Eye bath Safety shower

ENGINEERING CONTROLS

General (mechanical) room ventilation is expected to be satisfactory.

EXPOSURE LIMITS

<u>Component</u>	<u>Type</u>	<u>Value</u>
Phthalate Plasticizer	PEL, OSHA	None Established
	TLV, ACGIH	None Established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical State	Oily Liquid
Color	Clear, Pale
Odor	Ester

OTHER PROPERTIES

Boiling point	152 °C at STP unless specified below, at 4 mmHg
Melting point	< 0 °C at STP unless specified below.
pH	Not available
Specific gravity (H₂O=1)	1.0400 at 25 °C (1,013 hPa)
Vapor pressure	< 1.33 hPa (1.00 mmHg) at 20 °C
Vapor density (air=1)	Heavier than air
Solubility in water	Reacts rapidly
Evaporation rate (Butyl Acetate=1)	negligible
Flash point:	112.7°C (235 °F) Method: Pensky-Martens closed cup ASTM D 93
Upper explosion limits	Not available
Lower explosion limits	Not available

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Volatiles 65 g/liter (estimated)
Molecular weight Mixture

NOTE: These physical data are typical values based on component testing but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and handling.

Stability - Conditions to avoid

None known.

Incompatible materials

Reacts with water or moisture to form methanol and/or siloxane gel.

Hazardous combustion products

Burning can produce the following combustion products:

Oxides of carbon.
Oxides of nitrogen.
Oxides of silicon.

Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Hazardous polymerization: Does not occur.

Hazardous polymerization - Conditions to avoid

None known.

11. TOXICOLOGICAL INFORMATION

SWALLOWING

Acute effects

Potentially serious. The material reacts with water to form a solid obstruction in the stomach. This product hydrolyzes in the stomach to form methanol. Methanol may cause nausea, abdominal pain, vomiting, headache, dizziness, shortness of breath, weakness, fatigue, leg cramps, restlessness, confusion, drunken behavior, visual disturbances, drowsiness, coma, and death. There may be a delay of several hours between swallowing methanol and the onset of signs and symptoms. The effects observed are in part due to acidosis and partially to cerebral edema. Visual effects include blurred vision, diplopia, changes in color perception, restriction of visual fields, complete blindness. Ingestion of moderate quantities of methanol also produces metabolic acidosis. Onset of symptoms may be delayed up to 48 hours. 60-200 ml methanol is fatal dose for most adults. Ingestion of as little as 10 ml methanol has caused blindness. With massive overdoses, liver, kidney and heart muscle injuries have been described.

SKIN ABSORPTION

Acute effects

No evidence of harmful effects from available information.

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INHALATION

Acute effects

Short-term harmful health effects are not expected from vapor generated at ambient temperature.

SKIN CONTACT

Acute effects

Causes severe irritation.

Causes the following effects:

- discomfort or pain
- marked local redness
- swelling

EYE CONTACT

Acute effects

Causes severe irritation.

Causes the following effects:

- discomfort
- pain
- excess blinking
- tear production
- marked excess redness of the conjunctivae
- swelling of the conjunctivae
- chemical burns of the cornea

Medical conditions aggravated by overexposure

May aggravate:

- an existing kidney disease
- an existing liver disease

Skin contact may aggravate:

- an existing dermatitis

Other effects of overexposure

This material can be regarded at most as exhibiting a minimal potential to produce skin sensitizing reactions, which is most likely to be exhibited in the presence of other skin irritants.

SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH

This material was not clastogenic in an in vitro study with CHO cells.

12. ECOLOGICAL INFORMATION

All available ecological data have been taken into account for the development of the hazard and precautionary information contained in this Safety Data Sheet.

13. DISPOSAL CONSIDERATION

General: Incinerate in a furnace where permitted under appropriate Federal, State, and local regulations.

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14. TRANSPORT INFORMATION

DOT Classification

Not regulated by ground or rail if shipped or transported in containers less than 450 liters.

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
(Bis(trimethoxysilylpropyl)amine)

Class: 9
UN ID #: UN 3082

Packing group:	III
Freight description road:	CHEMICALS, NOIBN

IMDG Classification

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
(Bis(trimethoxysilylpropyl)amine)

Class: 9
UN ID #: UN 3082
Packing group: III

ICAO Classification

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s.
(Bis(trimethoxysilylpropyl)amine)

Class: 9
UN ID #: UN 3082
Packing group: III

15. REGULATORY INFORMATION

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40CFR355 (used for SARA 302 and 304).

Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Massachusetts Right-To-Know Substance List (MSL)--Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

Pennsylvania Right-To-Know Hazardous Substance List--Hazardous Substances and Special Hazardous Substances on the list must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:
**** NONE ****

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New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

Chemical name	CAS#	New Jersey TS Number
Bis(trimethoxysilylpropyl)amine	82985-35-1	
Phthalate Plasticizer	68515-40-2	

EPA Hazard Categories (SARA 311, 312): Immediate Health Hazard, Delayed Health Hazard

California Proposition 65

This product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.

California SCAQMD Rule 443.1 VOC's

Volatile Organic Components (VOC's) = Substances with vapor pressure of \Rightarrow 0.5 mm Hg at 104°C (219.2°F). This product contains 65 g/liter VOC's (estimated).

CHEMICAL INVENTORY

Europe: 403-480-3

United States: The ingredients of this product are listed on the TSCA inventory or are exempt.

Australia: This product is not listed or exempt from listing on the Australian Inventory of Chemical Substances (AICS).

Japan: This product is not listed or exempt from listing on the Existing and New Chemical Substances (ENCS) list.

Korea: This product is not listed on the Existing Chemicals List (ECL).

Philippines: This product, or the components, is listed or exempt from listing on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).

16. OTHER INFORMATION

RECOMMENDED USES AND RESTRICTIONS

Please consult the product and/or application information bulletins for this product.

HMIS RATING

Health: 2 Flammability: 1 Reactivity: 2 PPI: X

LEGEND

STP	Standard temperature and pressure
w/w	Weight/Weight
0 (HMIS)	Minimal hazard
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

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International Coatings Company, Inc. believes to the best of its knowledge the information provided herein is factual and the recommendations made are accurate as of the date shown. Since the use of this information and of these opinions and the conditions of use of this product are not within the control of International Coatings Company, it is the user's obligation to determine the conditions of safe use of the products. In no event will International Coatings Company be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers.