



**1. Product and Company Information**

**Company Info:** ICOAT Products, Inc. 1519 W. Grant St. Phoenix, AZ 85007, USA  
 Phone: (602) 258-1114 Fax: (602) 258-1119 [www.icoatproducts.com](http://www.icoatproducts.com)

**Product Name:** Adhesion Enhancer  
**Intended Use:** Corrosion Conducting Inhibitor

**Prepared by:** ICoat Products Loss Control  
**Preparation Date:** January 15, 2009  
**Review Dates:** April 05, 2002  
**Emergency Contact - Chemtrec:** (800) 424-9300

**Physical / Chemical Characteristics**

**HMIS Classification:** H F R PP  
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**Boiling Point:** 219° F (104° C)  
**Vapor Pressure Product:** 17.3 mmHg @ 20° C  
**Solubility In Water % :** 100%  
**Physical Appearance:** Clear Amber Liquid

**Freezing Point:** 28° F (-2° C)  
**PH:** 10.4 – 11.6  
**Corrosive:** No  
**Odor:** None

**Specific Gravity (H2O=1):** 1.01

**2. Hazard Identification**

**Hazard Classification:** Non-flammable (based on IMO and DOT) **Fire and Explosion:** None

**Primary Routes of Entry:** Eye, Skin Contact, Inhalation, Ingestion.

**R36** Irritant to eyes  
**R38** Irritant to skin  
**Skin Contact:** May cause a mild skin irritation.  
**Eye Contact:** Eye irritation may occur.  
**Inhalation:** No problems are expected.  
**Ingestion:** May be harmful if swallowed

**3. Composition Information**

Product Composition	Approx %	ACGIH TLV	OSHA PEL	NIOSH REL	CAS #	EINECS	Symbol	Risk
Water	80-95	None	None	None	7732-18-5	231-791-2	None	None
Diethylene Glycol Monobutyl Ether (DGBE)	< 4	None	None	None	112-34-5	203-961-6	Xi,	R36
N-Methyl-2-Pyrrolidone (NMP)	< 4.2	None	None	None	872-50-4	212-828-1	Xi,	R 36/38

This document is prepared pursuant to the OSHA Hazard communication standard (29 CFR 1910.1200). In addition, other substances no 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.



#### **4. Health Hazard & First Aid Measures**

##### **Emergency and First Aid Procedures:**

**General:** Flush all exposed areas with plenty of water

**Eyes:** Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Seek medical advice.

**Skin:** Wash extensively with soap and rinse with water.

**Ingestion:** In the event of ingestion, administer large amounts of water. DO NOT INDUCE VOMITING. Seek medical advice.

**Inhalation:** No problems are expected.

#### **5. Fire and Explosion Hazard Data**

**Flash Point:** None

**Flammable Limits in Air by Volume - Lower:** Not Applicable

**Extinguishing Media:** Not Applicable

**Unusual Fire and Explosion Hazards:** None

**Upper:** Not Applicable

**Fire Hazard Class:** Not Applicable

#### **6. Accidental Release Measures**

**For all transportation accidents, call Chemtrec at 800-424-9300.**

**Steps to be taken in Case Material is Released or Spilled:** Product is biodegradable.

**Clean-Up Procedures:** If recovery is not feasible, clean up as much as possible and place in appropriate container for disposal. Flush area with water spray; prevent contaminated rinse water from entering storm drains, drywell, land areas or other water courses. For large spills, recover spilled material with a vacuum truck. Reference section 15 on applicable regulations.

**Disposal Procedures:** Dispose of in accordance with Federal, State and local regulations.

#### **7. Handling and Storage**

**Precautions to be taken in Handling:** Do not store in temperatures below 32° F. Avoid contact with skin, eyes or clothing. Wear proper protective equipment. Clean hands after handling product. Keep out of Reach of children. Follow all local regulations for handling and storage. Utilize chemical segregation from acids.

**Other precautions:** Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA).

#### **8. Exposure Controls / Personal Protection**

**Eye / Face Protection:** Full face shield, safety goggles or chemical goggles.

**Hand Protection:** Rubber Gloves will be suitable.

**Respiratory Protection:** Not required under normal conditions.

**Protective Clothing:** Impervious clothing. Suitable protective clothing to prevent skin contact.

**Engineering Controls:** No specific controls needed.

**Ventilation:** No special precautions required.

**Work and Hygienic Practices:** Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking or using the toilet. Avoid contact with eyes.

#### **9. Reactivity Data**

**Stability:** Stable

**Conditions to avoid:** Not applicable

**Incompatibility (Materials to Avoid):** Strong acid solutions. Product will have an exothermic reaction with strong acid solutions

**Hazardous Decomposition or Byproducts:** None



**Hazardous Polymerization:** Will not occur.

## **10. Toxicological Information**

**Eye Irritation Data:** **DGBE:** Severe **NMP:** Moderate  
**Acute Toxicity Effects Data:** Oral LD50 (rat): **DGBE:** 5660 mg/kg **NMP:** 3914 mg/kg  
**Acute Dermal Toxicity:** Skin LD50 (Rabbit): **DGBE:** NA **NMP:** 8g/kg  
**Acute Inhalation Toxicity (LC50, Rat):** No data  
**Reproductive (TDL0):** **NMP:** 9700 mg/kg  
**Carcinogenic Data:** **NTP, OSHA & IARC:** None Listed  
**AMES Test Results:** No data available

**California Regulatory Information:** The following levels represent the No Observable Effects Levels (NOEL) for NMP. Reference section 15, Regulator Information.

**NMP Max Allowable Daily Level:** 3200 ug/day Inhalation 17000 ug/day dermal  
Note: Normal use of Adhesion Enhancer will result in exposure levels much less than acceptable in the NOEL for NMP

**Other Information:** Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented. See actual entry in RTECS for complete information.

## **11. Ecological Information**

**Biodegradable:** Yes

**Bioaccumulation:** No data available

**Aquatic Toxicity:** *NMP:* 100% NMP may be harmful to aquatic life at concentrations above 100mg/L. The LC50 (pimephales promelas, 96 hours) = 100mg/L; and the LC50 (Ceriodaphnia dubia, 58 hours) = 100mg/L.

**Other Information:** None

**199/45/EC/ Annex III:** No Environmental Hazards

## **12. Disposal Information**

**Disposal of Emptied Containers:** Dispose of container in accordance with Federal, State and local regulations in your country.

Rinse container prior to disposal. Large quantities of waste may require adjustment to a neutral pH. No chemicals listed in the product are listed as Priority Pollutant in Appendix A to 40 CFR, Part 423 – 126 Priority Pollutants

## **13. Transportation Information**

**Labels for Transport**

<b><u>Road Transport:</u></b>	
<b>DOT</b>	Not Regulated
<b>UN Number:</b>	None
<b>DOT / ADR Hazard Class:</b>	None
<b>DOT / ADR Labels:</b>	None
<b>Placard:</b>	None
<b>DOT / ADR Packaging Group:</b>	None
<b>Hazard Number – ADR:</b>	None
<b>DOT / ADR Proper Shipping Name:</b>	None
<b>EPA Hazardous Waste Class:</b>	None
<b>Marine Pollutant:</b>	None
<b>DOT Reportable Qty:</b>	None
<b><u>Rail Transport:</u></b>	None
<b><u>Ocean Transport:</u></b>	None
<b><u>Air Transport:</u></b>	None



## 14. Regulatory Information

### US Federal Regulations:

**Toxic Substances Control Act (TSCA):** All components are listed in (TSCA) Chemical Substance inventory.

**EPA SARA Title III Section 313 (40CFR370) Toxic Chemicals Above "de minimis" level are:** Glycol Ethers, NMP

### State Regulations:

**California Proposition 65 Substances: component(s) known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986":** NMP

NMP is known to the state of California to cause reproductive harm. The following levels represent the No Observable Effects Levels (NOEL) for NMP:

Maximum Allowable Daily Level: 2003 Draft: 3200 ug/day Inhalation

Maximum Allowable Daily Level: 2003 Draft: 17000 ug/day Dermal

Note: Normal use of Adhesion Enhancer will result in exposure levels much less than the NOEL for NMP.

### State Right-To-Know toxic substance or hazardous substance list:

**New Jersey:** None

**Florida Toxic Substance(s):** None

**Massachusetts' Hazardous Substance(s):** NMP

**Pennsylvania's Hazardous Substance(s):** NMP

### Clean Air ACT Amendments (1990)

**Section 112, Hazardous Air Pollutants:** Glycol Ethers  
This substance is listed Hazardous Air Pollutant

**Section 111, Volatile Organic Compounds:** NMP

This substance is subject to compliance with emission standards of 40CFR Part 60: NNN,RRR.

**Clean Water ACT:** No chemicals used in this product are listed as a Priority Pollutant in Appendix A to 40 CFR, Part 423-126 Priority Pollutants.

## 15. International Regulations

### CANADA

**DSL Listed:** **DGBE:** Yes **NMP:** Yes

**WHMIS Hazard Classification:** **DGBE:** Canada Gazette, Part 2, 122 (2) (Jan 1, 1988)  
**NMP:** Canada Gazette, Part 1, 135 #12:940 (Mar 24, 2001)

**This Product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.**

### European Economic Community (EEC):

This product has been reviewed for compliance with the following European Community Directives: Directive 67/548/EEC, Directive 91/155/EC, Directive 2001/60/EC, Directive 1999/45/EC and Directive 2001/58/EC.

Note: All components of this product are listed in EINICS.

Component	EINEC/ELINC Number	EINEC/ELINC Status	CMR Classification	Danger Symbol	Risk Phrase Number	Safety Phrase Number	WGK	C
DGBE	203-961-6	Listed	Xi, R 36	Xi	R36	S(-2)26	0	
NMP	212-828-1	Listed	Xi, R 36/38	Xi	R 36/38	S(-2)41	1	>=9%

**EINECS:** European Inventory of Existing Commercial Chemical Products

**ELINCS:** European List of Notified Chemical Substances

**R36:** Irritant to Eyes

**R38:** Irritant to skin

**S(-2):** Keep out of reach of children

**S41:** In case of fire and/or explosion do not breathe fumes.

**S36/37:** Wear suitable protective clothing & gloves

**S26:** In case of contact with eyes rinse immediately with plenty of water and seek medical attention.

**Danger Symbols:** Xi = Irritant



## **16. Other Information**

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of iCOAT Products, Inc. Product Safety Program. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information obtained herein. Data sheets are available for all of iCOAT's Products. You are urged to obtain data sheets for all of iCOAT's Products you buy, process, use or distribute and you are encouraged and requested to advise those who may come in contact with such products of the information contained therein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. iCOAT Products does not undertake to furnish advice on such matters.