# **Material Safety Data Sheet**

**BLUE OX<sup>™</sup> M 300** 

## ADHESIVE \_\_\_\_\_

R<sub>g</sub>D

**TELEPHONE 715-832-4557** 

### **1. Product Information**

Product Name	M300
CAS Number	80-62-6
EINECS Number	201-297-1
Index Number	607-035-00-6
Product Code	M300
Synonyms	METHACRYLIC ACID METHYL ESTER
Company Name	Adhesive R&D, 3013 Mondovi Rd., Eau Claire, WI 54701, Phone: 715-832-4557, Fax: 715-832-0548

#### 2. Hazardous Ingredients

Ingredients	CAS#	<b>EINECS</b>	Percent	<u>F</u>	<u>XI</u>	Sens.
2-HYDROXYETHYL METHACRYLATE	868-77-9	212-782-2	1-10%		R36/38	R43
METHYL METHACRYLATE	80-62-6	201-297-1	30-50%	R11	R37/38	R43

#### **3. Physical and Chemical Properties**

Physical State	Liquid
Color	Colorless
Odor	Characteristic odor
Evaporation Rate	Slow
Oxidizing	Non-Oxidizing (by EC criteria)
Solubility in Water	Slightly soluble
Also Soluble in	Most organic solvents
Viscosity	Highly viscous
Boiling Point/Range°C	100.5°C
Melting Point/Range°C	-48°C
Flammability Limits %	
Lower	2.1
Upper	12.5
Flash Point <sup>°</sup> C	11.5°C
Autoflammability°C	421°C
Vapor Pressure	28mm@20°C
Relative Density	0.949

#### 4. Hazards Identification

Main hazards	Highly flammable. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
Other hazards	In use, may form flammable/explosive Vapor-air mixture.

5. Health Hazards Data

Effects of Over Exposure	Acute
Eyes	There may be irritation and redness.
Skin	There may be irritation and redness at the site of contact.
Ingestion	Nausea and stomach pain may occur. There may be vomiting.
Inhalation	There may be shortness of breath with a burning sensation in the throat. Drowsiness or mental confusion may occur.

#### 6. First Aid Procedures Flush immediately with clean, lukewarm water (low pressure) for at least 15 minutes while holding eye Eye Contact lids open. Obtain medical attention immediately. Skin Contact Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning. Inhalation Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible. Ingestion Do not induce vomiting. If conscious, give half a liter of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the

recovery position. Transfer to hospital as soon as possible.

Extinguishing Medi	а	Water spray. Carbon dioxide. Alcohol resistant foam. Dry chemical powder.				
Exposure Hazards		Highly flammable. Vapor may travel considerable distance to source of ignition and flash back.				
Protection of Fire-F	ightors	Forms explosive air-vapor mixture.				
	igniters	Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.				
8. Accidental Rel	lease Meas	ures				
Personal Precautio	ns	Refer to section 10 of MSDS for personal protection details. Eliminate all sources of ignition.				
Environmental Prec		Do not discharge into drains or rivers. Contain the spillage using bunding.				
Clean-up Procedure	es .	Absorb into dry earth or sand. Transfer to a closable, labeled salvage container for disposal by an appropriate method.				
9. Handling and S	Storage					
Handling Requirem	ents	Ensure there is sufficient ventilation of the area. Earth any equipment used in handling. Avoid				
Storage Conditions		direct contact with the substance. Smoking is forbidden. Store in cool, well ventilated area. Keep away from sources of ignition. Keep away from direct sunlight				
10. Exposure Co	ntrols/Perse	onal Protection				
Occupational Expos	sure Limits					
TWA (8 hr exposure		208 mg/m3 (0ES)				
STEL (15 min expo	,	416 mg/m3 (OES)				
Hazardous ingredie	1115	<b>2-METHYLPROPENOIC ACID</b> TWA (8 hr exposure limit): 72 mg/m3 STEL (15 min exposure limit): 143 mg/m3 (OES)				
		METHYL METHACRYLATE				
		TWA (8 hr exposure limit): 208 mg/m3 STEL (15 min exposure limit): 416 mg/m3 (0ES)				
Engineering Measu	res	Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are				
Poonizatory Drate -	Hon	not a source of ignition. Self-contained breathing apparatus must be available in case of emergency.				
Respiratory Protect Hand Protection	tion	Protective gloves.				
Eye Protection		Safety goggles.				
Skin Protection		Protective clothing with elasticated cuffs and closed neck. Boots made of PVC.				
11. Stability and	Reaction					
	Reaction					
Stability	Redetion	May polymerize on exposure to light.				
Stability Conditions to Avoid		Heat. Light. Sources of ignition.				
Stability						
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens.				
Stability Conditions to Avoid	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie	I Information	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL MUS LD50 7872 mg/kg				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity	I Information nts	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In	I Information nts	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL MUS LD50 7872 mg/kg May cause sensitization by skin contact.				
Stability Conditions to Avoid Materials to Avoid <u>12. Toxicological</u> Hazardous ingredie Chronic Toxicity <u>13. Ecological In</u> Mobility	I Information nts formation	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL MUS LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil.				
Stability Conditions to Avoid Materials to Avoid <u>12. Toxicological</u> Hazardous ingredie Chronic Toxicity <u>13. Ecological In</u> Mobility Persistence and De	I Information nts formation	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact.				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological	Information nts formation egradability otential	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL AT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil. Photodegradable.				
Stability Conditions to Avoid Materials to Avoid <u>12. Toxicological</u> Hazardous ingredie Chronic Toxicity <u>13. Ecological In</u> Mobility Persistence and De Bioaccumulative Po Other Adverse Effect <u>14. Disposal Con</u>	Information nts formation egradability otential cts	Heat. Light. Sources of ignition.   Acids. Oxidizing agents. Bases. Amines. Halogens. <b>2-METHYLPROPENOIC ACID</b> IPR RAT LD50 1250 mg/kg   ORL MUS LD50 3275 mg/kg   ORL RAT LD50 5050 mg/kg <b>METHYL METHACRYLATE</b> IPR RAT LD50 1328 mg/kg   ORL MUS LD50 3625 mg/kg   ORL MUS LD50 3625 mg/kg   ORL RAT LD50 7872 mg/kg   May cause sensitization by skin contact.   Volatile. Soluble in water. Readily absorbed into soil.   Photodegradable.   No bioaccumulation potential.   Harmful to aquatic organisms.				
Stability Conditions to Avoid Materials to Avoid <u>12. Toxicological</u> Hazardous ingredie Chronic Toxicity <u>13. Ecological In</u> Mobility Persistence and De Bioaccumulative Po Other Adverse Effect <u>14. Disposal Con</u>	Information nts formation egradability otential cts	Heat. Light. Sources of ignition.   Acids. Oxidizing agents. Bases. Amines. Halogens. <b>2-METHYLPROPENOIC ACID</b> IPR RAT LD50 1250 mg/kg   ORL MUS LD50 3275 mg/kg   ORL RAT LD50 5050 mg/kg <b>METHYL METHACRYLATE</b> IPR RAT LD50 1328 mg/kg   ORL MUS LD50 3625 mg/kg   ORL MUS LD50 3625 mg/kg   ORL RAT LD50 7872 mg/kg   ORL RAT LD50 7872 mg/kg   May cause sensitization by skin contact.   Volatile. Soluble in water. Readily absorbed into soil.   Photodegradable.   No bioaccumulation potential.				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In Mobility Persistence and De Bioaccumulative Pe Other Adverse Effec 14. Disposal Con NB	Information nts formation egradability otential cts siderations	Heat. Light. Sources of ignition.   Acids. Oxidizing agents. Bases. Amines. Halogens. <b>2-METHYLPROPENOIC ACID</b> IPR RAT LD50 1250 mg/kg   ORL MUS LD50 3275 mg/kg   ORL RAT LD50 5050 mg/kg <b>METHYL METHACRYLATE</b> IPR RAT LD50 3625 mg/kg   ORL MUS LD50 3625 mg/kg   ORL RAT LD50 7872 mg/kg   May cause sensitization by skin contact.   Volatile. Soluble in water. Readily absorbed into soil.   Photodegradable.   No bioaccumulation potential.   Harmful to aquatic organisms.				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In Mobility Persistence and De Bioaccumulative Pe Other Adverse Effec 14. Disposal Con NB 15. Transport Inf ADR/RID	Information nts formation egradability otential cts siderations	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg ORL RAT LD50 5050 mg/kg ORL MUS LD50 3625 mg/kg ORL MUS LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil. Photodegradable. No bioaccumulation potential. Harmful to aquatic organisms. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In Mobility Persistence and De Bioaccumulative Pe Other Adverse Effect 14. Disposal Con NB 15. Transport Inf ADR/RID UN No	Information nts formation egradability otential cts siderations ormation 1247	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL RAT LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil. Photodegradable. No bioaccumulation potential. Harmful to aquatic organisms. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In Mobility Persistence and De Bioaccumulative Po Other Adverse Effec 14. Disposal Con NB 15. Transport Inf ADR/RID UN No Shipping Name	Information nts formation egradability otential cts siderations ormation 1247	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg ORL RAT LD50 5050 mg/kg ORL MUS LD50 3625 mg/kg ORL MUS LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil. Photodegradable. No bioaccumulation potential. Harmful to aquatic organisms. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In Mobility Persistence and De Bioaccumulative Pe Other Adverse Effect 14. Disposal Con NB 15. Transport Inf ADR/RID UN No Shipping Name Labeling IMDG/IMO	I Information nts formation egradability otential cts siderations ormation 1247 METHYL METH 3	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL RAT LD50 7872 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil. Photodegradable. No bioaccumulation potential. Harmful to aquatic organisms. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal. ADR Class 3 IACRYLATE MONOMER, INHIBITED Hazard ID No 39				
Stability Conditions to Avoid Materials to Avoid 12. Toxicological Hazardous ingredie Chronic Toxicity 13. Ecological In Mobility Persistence and De Bioaccumulative Pe Other Adverse Effec 14. Disposal Con NB 15. Transport Inf ADR/RID UN No Shipping Name Labeling	I Information nts formation egradability otential cts siderations ormation 1247 METHYL METH	Heat. Light. Sources of ignition. Acids. Oxidizing agents. Bases. Amines. Halogens. 2-METHYLPROPENOIC ACID IPR RAT LD50 1250 mg/kg ORL MUS LD50 3275 mg/kg ORL RAT LD50 5050 mg/kg METHYL METHACRYLATE IPR RAT LD50 1328 mg/kg ORL MUS LD50 3625 mg/kg ORL MUS LD50 3625 mg/kg May cause sensitization by skin contact. Volatile. Soluble in water. Readily absorbed into soil. Photodegradable. No bioaccumulation potential. Harmful to aquatic organisms. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal. ADR Class 3 MACRYLATE MONOMER, INHIBITED				

<u>IATA/ICAO</u>						
UN No	1247	Class	3			
Packing Group	П	Labeling	3			
Packing instructions	307					
17. Regulatory li	nformatio	n				
Hazard Symbols		Highly f	lammable.			
		Irritant.				
Risk Phrases		R11: H	ighly flammable.			
		R36/37	7/38: Irritating to eyes, respiratory system and skin.			
		R43: M	ay cause sensitization by skin contact.			
Safety Phrases		S24: Av	S24: Avoid contact with skin.			
-		007 14	ear suitable gloves.			

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

18. Other Information	
Risk Phrases Used in s.2	R36/38: Irritating to eyes and skin.
	R43: May cause sensitization by skin contact.
	R11: Highly flammable.
	R37/38: Irritating to respiratory system and skin.

We believe the information contained herein is current and accurate as of this date of this Material Safety Data Sheet. Since the use of this information and these opinions and the conditions of use of this product are not under the control of ADHESIVE R&D, Inc. or it's agents or distributors, it is the user's obligation to determine the conditions of safe use of this product. The buyer should conduct its own tests of this product before use to determine proper preparation technique and suitability for proposed application. ADHESIVE R&D, Inc. warrants that the product conforms with ADHESIVE R&D's written specifications, and is free from defects and disclaims all other warranties, expressed or implied and is not responsible for loss claim of damages resulting from the use of it's products.