

## 1. Identification

Product Identifier: **FormRub 65 Liquid Rubber Part B**  
 Product Code(s): FORMRUB65B  
 Use: Component for Polyurethane Mold Rubber.  
 For Industrial/Professional use only.  
 Manufacturer: Polytek Development Corp.  
 55 Hilton St., Easton, PA 18042 USA  
 Phone Number: +1 610-559-8620 (9 a.m. to 5 p.m. EST)  
 Emergency Phone: CHEMTREC 800-424-9300 or  
 +1 703-527-3887  
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## 2. Hazards Identification

### GHS Classification:

Carcinogen Category 1B  
 Aquatic Toxicity - Acute Category 2  
 Aquatic Toxicity - Chronic Category 1

Label Elements: Danger



Contains 4,4'-Methylene bis(2-chloroaniline)

### Hazard Phrases

H350 May cause cancer.  
 H410 Very Toxic to aquatic life with long-lasting effects.

### Precautionary Phrases

P202 Do not handle until all safety precautions have been read and understood.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves, protective clothing and eye protection.  
 P308 + P313 IF exposed or concerned: Get medical advice.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents and container in accordance with local and national regulations.

**Supplemental Information:** May cause eye and skin irritation. Avoid contact with eyes, skin and clothing. This is one part of a two-part system. Read and understand the hazard information on Part A before using.

## 3. Composition/Information on Ingredients

Chemical Name	CAS #	GHS Classification	%
4,4'- Methylene bis (2-chloroaniline) (MOCA)	101-14-4	Carcinogenicity 1B Aquatic Tox –Acute 1 Aquatic Tox –Chronic 1	10-12
Other ingredients are not classified as health, physical or environmental hazards, or are present below cut-off/concentration limits.			

## 4. First-Aid Measures

**Eye Contact:** Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Remove contact lenses if safe and easy to do. Continue rinsing. Get medical attention if irritation persists.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation persists.

**Inhalation:** Remove person to fresh air. Get medical attention if symptoms persist.

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

**Most Important Symptoms/Effects:** Long-term exposure may cause harmful effects (see Section 11).

**Indication of Immediate Medical Attention/Special Treatment:** If product gets in eyes, immediately flush with water.

## 5. Fire-Fighting Measures

**Extinguishing Media:** Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

**Specific Hazards:** Not classified as flammable. Product will burn under fire conditions. Combustion products include oxides of carbon and nitrogen, organic acids and other toxic organic compounds.

**Special Protective Equipment & Precautions for Fire-Fighters:** Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

## 6. Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency

**Procedures:** Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors. Caution – spill area may be slippery.

**Methods and Materials for Containment and Cleanup:** Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

## 7. Handling and Storage

**Safe Handling:** Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

**Safe Storage:** Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed.

## 8. Exposure Controls/Personal Protection

**Occupational Exposure Limits:** For MOCA: ACGIH TLV 0.01 ppm 8-hr TWA (skin); NIOSH 0.003 mg/m<sup>3</sup> [skin].

**Biological Exposure Index:** ACGIH recommends end of shift urine sampling for MOCA, however, it has set no quantitative limit. The State of California requires that exposure to MOCA be controlled such that no workers' urine samples contain more than 100 µg/l when specific gravity is adjusted to 1.024.

**Ventilation:** Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Respiratory Protection:** If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety goggles.

**Other Protective Measures:** Wear impervious clothing to prevent skin contact and contamination of personal clothing. Avoid contaminating work surfaces. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

## 9. Physical and Chemical Properties

**Appearance:** Yellow translucent liquids

**Odor:** Amine-like, pungent

**Odor Threshold:** No data available

**pH:** Not applicable

**Melting Point:** No data available  
**Boiling Point:** No data available  
**Flash Point:** >176°C (350°F) (estimated)  
**Evap. Rate:** No data available  
**Upper/Lower Flammability Limits:** No data available  
**Vapor Pressure:** <0.1 mm Hg @ 25°C  
**Vapor Density:** No data available  
**Relative Density:** 1.03 @ 25°C  
**Solubility:** Slightly soluble in water  
**Partition Coefficient: n-octanol/Water:** No data available  
**Auto-Ignition Temp:** No data available  
**Decomposition Temp:** No data available  
**Viscosity:** 1100 cP @ 25°C

## 10. Stability and Reactivity

**Reactivity:** Reacts with Part A to form rubber.  
**Chemical Stability:** Stable under recommended conditions.  
**Possibility of Hazardous Reactions:** None known.  
**Conditions to Avoid:** Avoid excessive heat and exposure to sunlight. Avoid moisture.  
**Incompatible Materials:** Avoid contact with strong acids and strong oxidizing agents.  
**Hazardous Decomposition Products:** Thermal decomposition will generate oxides of carbon and nitrogen, organic acids, and/or other toxic organic compounds.

## 11. Toxicological Information

**Eye Contact:** May cause mild eye irritation.  
**Skin Contact:** May cause mild skin irritation.  
**Inhalation:** Vapors and mists may cause mild respiratory irritation.  
**Ingestion:** Not fully determined; but ingesting small amounts long-term may lead to chronic effects described below.  
**Chronic Health Effects:** Mixture has not been tested. Based on laboratory animal studies, prolonged exposure to MOCA may cause cancer and/or damage to the lungs, liver, kidneys, spleen, and mammary glands.  
**Acute Toxicity Values:** MOCA: Oral rat LD50 2000 mg/kg; Dermal rabbit LD50 >2000 mg/kg.  
**Skin Corrosion/Irritation:** Components are not classified as skin irritants.  
**Eye Damage/Irritation:** Components are not classified as eye irritants.  
**Respiratory Irritation:** Components are not classified as respiratory irritants.  
**Respiratory Sensitization:** Components are not respiratory sensitizers.  
**Skin Sensitization:** Components are not skin sensitizers.  
**Germ Cell Mutagenicity:** Components are not classified as mutagens.  
**Carcinogenicity:** MOCA caused neoplasms and pre-neoplastic lesions at all dose levels in a 2-year rat feeding study. The most common target organ was the lung, but liver, mammary gland and Zymbal gland lesions were also observed. MOCA is classified as a carcinogen by IARC (Group 1) and NTP (Reasonably Anticipated to be a carcinogen) and by the EU CLP as Category 1B.  
**Reproductive Toxicity:** Components are not classified as reproductive toxins.  
**Specific Target Organ Toxicity:** Single Exposure: No data available. Repeat Exposure: In rat feeding studies, MOCA caused effects on the spleen, liver and kidneys. The NOEL was 2 mg/kg.

## 12. Ecological Information

**Ecotoxicity:** Based on the concentration of MOCA, these products are very toxic to aquatic organisms: Aquatic Toxicity - Acute Category 2 and Aquatic Toxicity - Chronic Category 1.

MOCA: Oryzias latipes LC50 0.606 mg/L/96 hr; Daphnia EC50 0.916 mg/L/48 hr; 21-day reproduction study NOEC 0.0095 mg/L.

**Persistence and Degradability:** Not readily biodegradable.  
**Bioaccumulative Potential:** Not expected to bioaccumulate.  
**Mobility in Soil:** No data available.

## 13. Disposal Considerations

Dispose according to local, state and federal regulations. For U.S.: Upon disposal, this product is not a RCRA hazardous waste (per 40 CFR 261).

## 14. Transport Information

**U.S.:** UN 3082, Environmentally hazardous substance, liquid, n.o.s. (4,4' methylene bis (2-chloroaniline)), 9, III, RQ. Not regulated as a hazardous material by US DOT in containers of 5-gal or less.

**International shipments:** UN3082, Environmentally hazardous substance, liquid, n.o.s. (4,4' methylene bis (2-chloroaniline)), 9, III. Excepted from IMDG and IATA regulations in containers of 5 liters or less (see IATA SP A197 and IMDG 2.10.2.7).

**Emergency Shipping Information:** Call CHEMTREC, 800-424-9300 or +1-703-527-3887

## 15. Regulatory Information

### U.S. FEDERAL REGULATIONS:

**CERCLA 103 Reportable Quantity:** In 55-gal drums larger totes, FormRub 65 B is subject to spill reporting under CERCLA owing to MOCA content in excess of the RQ. (RQ for MOCA is 10 lb). Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

### SARA TITLE III

**Section 311/312:** Acute Health, Chronic Health

**Section 313 Toxic Chemicals:** These products contain the following chemical that is subject to SARA Title III Section 313 Reporting requirements.

4,4'-Methylene bis(2-chloroaniline), 101-14-4 <12%

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on TSCA.

### STATE REGULATIONS:

**California Proposition 65:** WARNING: This product contains a chemical known to the State of California to cause cancer. (MOCA)

## 16. Other Information

**Training Advice:** All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions:** This product is intended for industrial/professional use only.

**SDS Revision Notes:** New GHS format.

**Disclaimer:** The information contained herein is considered accurate; however, Polytek® Development Corp. makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.