

Material Safety Data Sheet

Emergency Phone: (316) 945-9328 24-Hour CHEMTREC (800) 424-9300 CHEMTREC, D.C. Area 800-483-7616

I. Chemical Product And Company Data

PRODUCT: Lube Adhesive - LA36
CHEMICAL FAMILY: Urethane elastomer
REVISION DATE: APRIL 2004
MANUFACTURER: Balco, Inc.
 2626 S. Sheridan, Wichita, KS 67217

Health	3
Flammability	2
Reactivity	1
Personal Protection	H

II. Composition / Information On Ingredients

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Where a proprietary ingredient is shown, the identity may be made available as provided in this standard. All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

HAZARDOUS INGREDIENTS	CAS NO	EXPOSURE LIMITS			CONTENT
		TLV	STEL	PEL	
Modified MDI	Proprietary	0.005ppm	0.02ppm	0.005ppm	40 - 70%
2,2 and 2,4' Diphenylmethane diisocyanate	26447-40-5	N/A	N/A	N/A	5 - 20%
Aromatic petroleum distillates (Naphthalene 91-20-3)	64741-41-3	15ppm	10ppm	15ppm	10.1%
Aliphatic Hydrocarbons	8052-41-3	100ppm	N/A	100ppm	16.9%
Amorphous Silica	7631-86-9	10 mg/m ³	N/A	10 mg/m ³	4%
Titanium Dioxide	13463-67-7	10 mg/m ³	N/A	10 mg.m ³	1.2%
4,4' Diphenylmethane diisocyanate	101-68-8	0.005ppm	0.02ppm	0.005ppm	1.2%

California Proposition 65 ingredients

None

Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 (40 CFR 372)

4,4' Diphenylmethane diisocyanate	101-68-8
Aromatic petroleum distillates	64741-67-9
Modified MDI	Proprietary

III. Hazards Identification

HMIS Hazard Rating No. 3

PRIMARY ROUTE OF ENTRY: Eye and skin contact, breathing and ingestion.

Symptoms of Exposure

- Skin Contact:** Contact may cause moderate skin irritation. In some individuals exposure may result in allergic type symptoms causing rash, itching, and hives.
- Eyes:** Contact can cause burning and tearing.
- Inhalation:** Inhalation of MDI vapors may cause irritation of the mucous membranes of the nose, throat, or trachea, breathlessness, chest discomfort, difficulty breathing and reduced pulmonary function. Airborne exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed.
- Ingestion:** Not expected to be a relevant route of exposure, although it may cause gastrointestinal irritation, nausea, vomiting and abdominal pain.
- Chronic:** Results from a lifetime study in rats indicate that MDI aerosol was carcinogenic at $6\text{mg}/\text{m}^3$, the highest dose tested. This is well above the recommended TLV of 5ppb ($0.05\text{mg}/\text{m}^3$). Only irritation was noted at the lower concentrations of 0.2 and $1\text{ mg}/\text{m}^3$. No birth defects or teratogenic effects were reported in a teratology study with rats exposed to 1, 4, and $12\text{mg}/\text{m}^3$ polymeric MDI for 6hr/day on days 6 – 15 of gestation. As a result of repeated overexposure or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate levels at levels well below the PEL / TLV. These symptoms include chest tightness, wheezing, cough, shortness of breath, or asthma attack, which could be immediate or occur several hours after exposure. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent.

IV. First Aid Measures

- Inhalation Remove victim from exposure. If difficulty with breathing, administer oxygen and seek medical assistance
- Eyes Flush eyes with cold water for a minimum of 15 minutes, lifting lower and upper eye lids throughout. Seek immediate medical attention.
- Skin Immediately remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.
- Ingestion Do not induce vomiting, get immediate medical attention, if vomiting occurs spontaneously keep head below hips to prevent aspiration of liquids into lungs. Do not give anything by mouth to an unconscious person.

V. Fire Fighting Methods

HMIS Hazard Rating No. 2

Flash Point: 102 ° F

General Hazard: Decomposition and combustion products may be toxic.

Auto-Ignition Temp.: Not Available

Limits of Flammability

LEL: 1%

UEL: 6.5%

Extinguishing Media:

Carbon dioxide, foam, dry chemical and water fog.

Special Fire & Unusual Hazards:

Move containers from area if it can be done without risk. Cool fire exposed containers with water from the side. As in any fire, wear NIOSH/MSHA approved, pressure demand self-contained breathing apparatus and full protective gear. Avoid water contamination in closed containers or confined areas as carbon dioxide is evolved.

VI. Accidental Release Measures

Action To Take For Spills/ Leaks: Avoid contact with skin or eyes. Ventilate area, eliminate all sources of ignition. Wear appropriate protective gear, contain leak or spill, salvage, clean up residue with absorbent material. Wash down area with dilute ammonium hydroxide or detergent solution, allow 30 minutes to react. For large spills, dike area and pump into closed containers. Prevent this material from entering waterways.

Waste Disposal Method: Handle disposal of waste material in manner which complies with local, state, provincial and federal regulation. Landfill if solidified, or incineration at agency approved waste-disposal facilities.

VII. Handling And Storage

Average Shelf Life:

Refer to Product Data Sheet

Special Instructions:

Keep containers closed and stored in a well ventilated area at 60 –80 deg F. Outage of container should be filled with nitrogen. Contamination by moisture or basic compounds can cause dangerous pressure build up in closed containers.

VIII. Exposure Controls / Personal Protection

Ventilation: Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

Personal Protection Equipment: Do NOT wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and impervious gloves. Wear clothing with long sleeves and pants. In operations where mists can be generated or the exposure limits for crystalline silica exceeded, wear a NIOSH/MSHA approved dust/fume respirator selected by a technically qualified person for the specific work conditions. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH approved respirators for listed hazard. Confined spaces, room, or tanks are areas where concern for TLV's is especially important. Reference OSHA regulation CFR 29 1910.134 for recommended respiratory protection.

IX. Physical And Chemical Properties

Boiling Point (°F):

331 - 682

Water/Oil Distribution

Coefficient:

N/A

VOC grams/litre:

288

Solubility in Water:

Reacts with water

Freezing Point (°C):	N/A	Specific Gravity @ 20 °C:	1.1
Vapor Pressure @ 20 °C:	N/A	pH:	N/A
Vapor Density:	N/A	Evaporation Rate:	N/A
Odor Threshold:	0.02 mg/m ³	Odor:	Musty
Appearance:	Gray liquid		
N/A = Not Available	N/D=NOT Determined	Ca. = Approximate	

X. Stability And Reactivity

HMIS Hazard Rating No. 1

- Stability: Stable
- Incompatibility: Strong acids, oxidizing agents, reducing agents, bases, water, peroxides and amines.
- Hazardous Decomposition Products: At elevated temperatures, isocyanate vapors may be formed. Under severe thermal degradation, carbon monoxide and low molecular weight organic compounds may be formed as well as hydrogen cyanide and MDI vapors.
- Conditions To Avoid: See incompatibility.

XI. Toxicity Information

HMIS Hazard Rating No. 3

PRIMARY ROUTE OF ENTRY: Eye and skin contact, breathing and ingestion.

Effects Of Overexposure

- Inhalation: Inhalation of MDI vapors may cause irritation of the mucous membranes of the nose, throat, or trachea, breathlessness, chest discomfort, difficulty breathing and reduced pulmonary function. Airborne exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed.
- Eyes: Contact can cause burning and tearing.
- Skin Contact: Contact may cause moderate skin irritation. In some individuals exposure may result in allergic type symptoms causing rash, itching, and hives.
- Ingestion: Not expected to be a relevant route of exposure, although it may cause gastrointestinal irritation, nausea, vomiting and abdominal pain.
- Chronic: Results from a lifetime study in rats indicate that MDI aerosol was carcinogenic at 6mg/m³, the highest dose tested. This is well above the recommended TLV of 5ppb (0.05mg/m³). Only irritation was noted at the lower concentrations of 0.2 and 1 mg/m³. No birth defects or teratogenic effects were reported in a teratology study with rats exposed to 1, 4, and 12mg/m³ polymeric MDI for 6hr/day on days 6 – 15 of gestation. As a result of repeated overexposure or a single large dose, certain individuals will develop isocyanate sensitization

(chemical asthma) which will cause them to react to a later exposure to isocyanate levels at levels well below the PEL / TLV. These symptoms include chest tightness, wheezing, cough, shortness of breath, or asthma attack, which could be immediate or occur several hours after exposure. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent.

XII. Ecological Information

Marine Pollutant: NL
(NL = Not Listed; P = Moderate; PP = Severe; ND - Not Determined)

XIII. Disposal Considerations

Handle disposal of waste material in manner which complies with all applicable local, state, provincial and federal regulations.

XIV. Transport Information

DOT SHIPPING INFORMATION

DOT Proper Shipping Name	Adhesives (flammable), 3	
DOT Hazard Class	III	
DOT I.D Number	UN1133	Label(s)

XV. Regulatory Information

OSHA Hazard Communication Standard (29 CFR 1910.1200)	Hazardous
CERCLA/ Super fund (40 CFR 117, 302)	N/A
SARA Extremely Hazardous Substances (40 CFR 355)	N/A
SARA Hazard Categories (40 CFR 370)	
SARA Toxic Chemicals (40 CFR 372)	See section II supplier notification
Inventory Status	The chemicals in this product are listed on the US TSCA Chemical Substance Inventory and the Canadian Domestic Substances List.

XVI. Other Information

THE INFORMATION HEREIN HAS BEEN COMPLIED FROM SOURCES BELIEVED TO BE RELIABLE AND IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, BALCO, INC. CAN NOT GIVE ANY GUARANTEES REGARDING INFORMATION FROM OTHER SOURCES, AND EXPRESSLY DOES NOT MAKE ANY WARRANTIES, NOR ASSUMES ANY LIABILITY, FOR ITS USE.