

SAFETY DATA SHEET

1.0 IDENTIFICATION

- 1.1 **GHS product identifier:** LUC-4101 A
- 1.2 **Other means of identification:** Polyol Blend
- 1.3 **Recommended use of the chemical and restrictions on use:** N/A
- 1.4 **Supplier's details:** CASS POLYMERS OF MICHIGAN, INC.
815 WEST SHEPHERD STREET
CHARLOTTE MI 48813 USA
INFORMATION PHONE: (248) 588-2270
- 1.5 **Emergency phone number:** (703) 527-3887(Call Collect)

2.0 HAZARDS IDENTIFICATION

- 2.1 **Classification of the substance or mixture:**
Flammable Liquids 3, Skin Corrosion/Irritation 2, Eye Damage/Irritation 2B, Specific Target Organ Toxicity 3
- 2.2 **GHS label elements:**



Signal Word: Warning

Hazard Statement: Flammable liquid and vapor

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection.

Response: If on skin (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: use carbon dioxide, foam, dry chemical or water fog to extinguish fire.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container by incineration under controlled conditions in accordance with all local and national laws and regulations.



Signal Word: Warning

Hazard Statement: Causes skin irritation

Prevention: Wash hands thoroughly after handling. Wear protective gloves.

Response: If on skin: wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before reuse.

Signal Word: Warning

Hazard Statement: Causes eye irritation

Prevention: Flush eyes thoroughly after eye contact.

Response: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.



Signal Word: Warning

Hazard Statement: May cause respiratory irritation

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

Response: If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container by incineration under controlled conditions in accordance with all local and national laws and regulations.

- 2.3 **Other hazards which do not result in classification:** N/A
- 2.4 **Hazards Material Information System (United States):**

Health	1
Flammability	3
Physical Hazard	1

Hazard Codes: =Chronic Hazard 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard

3.0 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Chemical Identity	CAS No.	Concentration
Quadrol Polyol	102-60-3	5% - 7%
Polyether Polyol	9051-49-4	10% - 15%
Aliphatic Hydrocarbons	8052-41-3	3% - 5%
Soda-Lime Glass	65997-17-3	50% - 60%
Trimethyl pentanediol monoisobutyrate	25265-77-4	1% - 4%
Aromatic Petroleum Distillates	64742-95-6	5% - 10%
Propylene Carbonate	108-32-7	<1%
Xylene	1330-20-7	0.4%
Sodium Potassium Aluminosilicate	12736-96-8	2% - 4%
Barium Sulfate	7727-43-7	7% - 10%

4.0 FIRST-AID MEASURES

4.1 Description of necessary first-aid measures:

Skin: Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse. If skin is damaged and/or symptoms persist, seek medical attention.

Eyes: Immediately rinse eyes with running water for 15 minutes. Get immediate medical attention, preferably from an ophthalmologist.

Ingestion: If swallowed, dilute with water. DO NOT INDUCE VOMITING. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.

Inhalation: Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

Notes to Physicians: Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding to induce vomiting.

Aggravated Medical Conditions: People with the following preexisting disorders of the following organs may be aggravated by exposure to this material: skin, lung, liver, kidney, central nervous system, blood-forming system, male reproductive system, immune system, auditory system, eyes. People with preexisting heart disorders may be more susceptible to arrhythmias if exposed to high concentrations of this material.

4.2 Most Important symptoms/effects, acute and delayed:

Eyes: Contact with eyes may cause irritation.

Respiratory: Breathing large amounts of vapor may be harmful. Exposure to high concentrations of vapors may cause CNS effects such as dizziness, drowsiness, and unconsciousness. Symptoms usually occur at air concentrations higher than the recommended exposure limits. Use of local exhaust and or dust/vapor respirators is recommended. Grinding, cutting or sanding of cured materials may liberate irritating dusts.

Skin: Prolonged skin contact may cause irritation. Prolonged or repeated contact may dry the skin.

Potential Chronic Health Effects:

Skin: Repeated skin contact may cause a persistent irritation or dermatitis. Repeated or prolonged exposure to skin may aggravate existing dermatitis.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

N/A

5.0 FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:

Water fog or fine spray. Carbon dioxide. Alcohol resistant foam. Dry chemical fire extinguishers.

5.2 Specific hazards arising from the chemical:

Flash Point is 40 °C. May generate toxic or irritating combustion products including Carbon Dioxide and various hydrocarbons. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot light, or other sources of ignition distant from the material handling point.

5.3 Special protective actions for fire-fighters:

Firefighters must wear self-contained breathing apparatus and turnout gear.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Evacuate and ventilate spill area. Shut off or remove all ignition sources. Dike spill to prevent entry into water system. Wear full protective equipment including respiratory equipment during clean up.

6.2 Methods and materials for containment and clean up:

Minor Spill: Spills should be contained, solidified and placed in suitable containers for disposal at a licensed facility. Take precautions to prevent fire by eliminating all sources of ignition. Prevent entry of material into drains, sewers and waterways. If entry occurs, notify proper authorities as required.

Clean Up: Absorb liquids with suitable absorbent. Absorbed materials should be placed into proper storage containers for disposal at a licensed facility.

7.0 HANDLING AND STORAGE**7.1 Precautions for safe handling:**

Avoid moisture.

7.2 Conditions for safe storage, including any incompatibilities:

The recommended storage temperature is 20°C-35°C for maximum shelf life. See also technical data sheet.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

Component	CAS No.	Percent	Exposure Limits	Source
Aliphatic Hydrocarbons	8052-41-3	3% - 5%	100ppm Threshold Weighted Average 100ppm Threshold Limit Value	OSHA ACGIH
Xylene	1330-20-7	<0.1%	100ppm Threshold Weighted Average 100ppm Threshold Limit Value	OSHA ACGIH
Barium Sulfate	7727-43-7	7% - 10%	10 mg/m ³ TWA -Total Dust 10ppm STEL	ACGIH OSHA
Soda-Lime Glass	65997-17-3	50% - 60%	15 mg/m ³ TWA -Total Dust 10 mg/m ³ TWA -Total Dust	OSHA ACGIH

8.2 Appropriate engineering controls:

Engineering controls should be installed and regularly monitored to ensure exposure to vapor/aerosol is minimized. Exhaust systems should be designed in accordance with work place conditions; the air should always be moved away from the source of vapor generation and the person working at this point. Where local ventilation is not feasible or possible, use personal respiratory protection such as a full-face respirator or half-mask with organic vapor cartridges installed.

8.3 Individual protection measures, such as personal protective equipment:

Respiration: Atmospheric levels should be maintained below exposure guidelines. When respiratory protection is required for certain operations, use a approved full-face air-purifying respirator. The respirator should contain an organic vapor sorbent and a particle filter. For operations such as spraying and other conditions, such as emergencies where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus. Use caution when grinding, sanding or machining cure materials as these may liberate hazardous or irritating dusts.

Eye/Face Protection: Eye wash fountain should be located in immediate work area. Use splash-proof chemical goggles.

Skin Protection: Wear overalls, boots, apron and gloves. Permeation test data indicate that the following are effective protective clothing materials: Butyl rubber. Neoprene. Nitrile/butadiene rubber. Laminated polyethylene. After work and before eating, drinking or smoking wash and clean yourself carefully with soap and water. Contaminated clothing should be washed and/or dry cleaned before re-use. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

Ventilation: Use local exhaust as necessary to maintain below Permissible Exposure Limits (PEL).

Explosion Proofing: No unusual explosion hazard exists. However, this material has a flash point of 40°C - 45°C . Take necessary grounding and safety precautions to prevent flash fire.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance (physical state, color, etc.): Mobile Liquid, Black or Tan

9.2 Odor: Solvent Odor

9.3 Odor threshold: N/A

9.4 pH: Not Determined

9.5 Melting point/freezing point: Not Determined

9.6 Initial boiling point and boiling range: Not Determined

- 9.7 **Flash Point:** 40°C
- 9.8 **Evaporation rate:** N/A
- 9.9 **Flammability (solid, gas):** N/A
- 9.10 **Upper/lower flammability or explosive limits:** LFL-not determined; UFL-not determined
- 9.11 **Vapor pressure:** Not determined
- 9.12 **Vapor Density:** N/A
- 9.13 **Relative density(Specific Gravity):** 1.73
- 9.14 **Solubility(ies):** Contains Blend of Soluble/Insoluble materials
- 9.15 **Partition coefficient; n-octanol/water:** N/A
- 9.16 **Auto-ignition temperature:** >300°C
- 9.17 **Decomposition temperature:** N/A
- 9.18 **Viscosity:** N/A
- 9.19 **Volatile content:** 8-12%

10.0 STABILITY AND REACTIVITY

- 10.1 **Reactivity:** N/A
- 10.2 **Chemical stability:** Stable under recommended storage conditions. See Section 7, Handling and Storage.
- 10.3 **Possibility of hazardous reactions:** This material will produce exothermic reactions with Isocyanates.
- 10.4 **Conditions to avoid:** Excessive heat. Exposure to elevated temperatures can cause product to decompose and/or produce extremely flammable vapors.
- 10.5 **Incompatible materials:** Acids, Oxidizing agents, Water.
- 10.6 **Hazardous decomposition products:** N/A

11.0 TOXICOLOGICAL INFORMATION

- 11.1 **Likely routes of exposure:** Respiration of mist and/or vapor.
- 11.2 **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Acute toxicity:** This finished product has not been tested to determine individual toxicological/ecological limits. Individual components of this mixture have been independently tested by the raw material manufacturers and any known results have been presented below. The results for the individual components may not be representative of the toxicity of this finished product.
 - Ingestion:** This material has a low potential for toxic effects due to ingestion. Follow proper procedures to eliminate the possibility of ingestion. Do not smoke or drink while using this product. After use, wash hands and face before eating or drinking.
 - Skin Contact:** Prolonged or widespread skin contact is not likely to cause toxic effects.
 - Irritation:** Skin contact has caused allergic skin reactions in certain sensitized individuals.
 - Eyes:** May cause slight temporary eye irritation with local redness. Mechanical irritation possible due to solid filler materials.
 - Inhalation:** May cause allergic respiratory response upon exposure to heated vapors. Sensitized individuals may experience allergic reactions upon brief or small exposures to vapor.
- 11.3 **Delayed and immediate effects and also chronic effects from short and long term exposure:**
 - Carcinogenicity/Reproductive Hazards:** There are no known cancer or reproductive hazards associated with this product.
 - Respiratory Hazards:** Breathing large amounts of vapor may be harmful. Exposure to high concentrations of vapors may cause CNS effects such as dizziness, drowsiness, and unconsciousness. Symptoms usually occur at air concentrations higher than the recommended exposure limits. Use of local exhaust and/or dust/vapor respirators is recommended. Grinding, cutting or sanding of cured materials may liberate irritating dusts. Use of a supplied air or filtering respirator is recommended where local ventilation is not adequate.
 - Skin Contact:** Prolonged contact can cause reddening, swelling, rash, scaling, or blistering due to defatting of the skin.
- 11.4 **Numerical measures of toxicity:**

Ingredient Name	CAS No.	%	Test	Result	Route	Species
Quadrol Polyol	101-68-8	7% - 9%	LD50	3280 mg/kg	Oral	Rat
Polyether Polyol	9051-49-4	10% - 15%	LD50	20.8 g/kg	Oral	Rat
Trimethyl Pentanediol Monoisobutyrate	25265-77-4	1% - 4%	LD50	3200 mg/kg	Oral	Rat

12.0 ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Chemical Name	CAS No.	%	Test	Concentration	Result	Species
Quadrol Polyol	102-60-3	5% - 7%	LC50	>1000 ppm	96 hr.	Fathead Minnow

Individual components of this mixture have been independently tested by the raw material suppliers and any known results have been presented above. The results for the individual components may not be representative of the ecological toxicity of this finished product. This finished product has not been tested to determine individual toxicological/ecological limits. Great Caution should be taken to prevent release to the environment. See Section 13 for further information.

12.2 Persistence and degradability:

This material contains components that show little or no evidence of biodegradability. Caution should be taken to prevent release to the environment. See Section 13 for further information.

12.3 Bioaccumulative potential: N/A

12.4 Mobility in soil: N/A

12.5 Other adverse effects: N/A

13.0 DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even small quantities, should never be poured down drains, sewers or water courses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured with its Isocyanate component at the proper mix ratio, may be safely landfilled.

Contaminated packaging: Empty containers can only be disposed of when the remaining product adhering to the container walls has been removed. Hazard warning labels should then be removed from the container walls.

14.0 TRANSPORT INFORMATION

Land Proper Shipping Name: Liquid Plastic, NOI (Not Regulated)

Air/Sea/Rail:

14.1 UN number: UN-1993

14.2 UN proper shipping name: Flammable Liquid, NOS (Petroleum Distillates)

14.3 Transport hazard class(es): 3

14.4 Packing group, if applicable: III

14.5 Environmental hazards: N/A

14.6 Transport in bulk: N/A

14.7 Special precautions for user: N/A

15.0 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations:

SARA 313 Information: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

COMPONENTS	CAS #	AMOUNT(%w/w)
Xylene, Mixed Isomers	1330-20-7	0.4%
1,2,4 trimethylbenzene	95-63-6	1.7%
Cumene	98-82-8	0.82%
Ethylbenzene	100-41-4	0.082%

SARA 311/312 Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

- An immediate health hazard
- A delayed health hazard
- A fire hazard

Toxic Substances Control Act (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

State Right-to-Know: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the SDS.

COMPONENTS	CAS #	AMOUNT(%w/w)	State List(s)
Xylene, Mixed Isomers	1330-20-7	0.4%	NJ

1,2,4 trimethylbenzene	95-63-6	1.7%	NJ, PA
Cumene	98-82-8	0.82%	NJ
Ethylbenzene	100-41-4	0.082%	NJ
Pseudocumene	95-63-6	*	NJ, PA
Benzene	71-43-2	*	CA
Toluene	108-88-3	*	CA

*= Trace amounts. No percentage available.

OSHA Hazard Communication Standard Classification: Irritant

Comprehensive Environmental Response Compensation and Liability Act (CERCLA, or SUPERFUND)

This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

COMPONENTS	CAS #	AMOUNT(%w/w)
Xylene, Mixed Isomers	1330-20-7	0.4%
Cumene	98-82-8	0.82%
Ethylbenzene	100-41-4	0.082%

CANADA REGULATIONS

WHMIS Classification: D2A- respiratory tract sensitizer, D2B – Eye or skin irritant, Class B -Flammable

WHMIS Symbol(s):



DSL: Components of this product have been reported to Environment Canada in accordance with subsection 25 of the Canadian Environmental Protection Act and are included on the Domestic Substances List.

WHMIS TRADE SECRET REGISTRY NUMBER(S). None

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. **None**

16.0 OTHER INFORMATION

16.1 Date of Preparation:08/29/2011

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.