



Safety Data Sheet

Prepared in Accordance with HCS 29
C.F.R. 1910.1200

1. Identification of the Substance/Mixture and the Company/Undertaking

- | | | | |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------|
| 1.1 Product Identifier | RM-9709B | Revision Date: | 04/14/2023 |
| Product Name: | Logiscell + | Supersedes Date: | 04/26/2021 |
| 1.2 Relevant identified uses of the substance or mixture and uses advised against | Polyurethane Leak SealerSee Technical Datasheet. Advised against: others than recommended | | |
| 1.3 Details of the supplier of the safety data sheet | <p>Supplier: Logiball
4210 rue Jean-Marchand
Quebec, QC G2C 1Y6
Tél: 418-656-9767
www.logiball.com</p> <p>Datasheet Produced by: info@logiball.com</p> | | |
| 1.4 Emergency telephone number: | <p>CHEMTREC +001 703 5273887 (Outside US)
CHEMTREC 1-800-424-9300 (Inside US)
Giftinformasjonen: +47 22 59 13 00</p> | | |

2. Hazard Identification

2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4
Carcinogenicity, category 2
Eye Irritation, category 2A
Respiratory Sensitizer, category 1
STOT, repeated exposure, category 2
STOT, single exposure, category 3, RT1
Skin Irritation, category 2
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

2,6-Toluene di-isocyanate, 4,4'-methylenediphenyl diisocyanate, dibutyl maleate, 4-methyl-m-phenylene diisocyanate, Diphenylmethane-2,4'-diisocyanate, Diphenylmethane-diisocyanate, isomers and homologues, Polypropylene glycol, ethoxylated, toluenediisocyanate polymer, Prepolymer

HAZARD STATEMENTS

Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2A	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.

PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous ingredients

<u>Name According to EEC</u>	<u>EINEC No.</u>	<u>CAS-No.</u>	<u>%</u>	<u>Classifications</u>	
Polypropylene glycol, ethoxylated, toluenediisocyanate polymer		9052-50-0	25 - <50	H317-319-332	Acute Tox. 4 Inhalation, Eye Irrit. 2, Skin Sens. 1
4,4'-methylenediphenyl diisocyanate	202-966-0	101-68-8	10 - <25	H315-317-319-332-3 34-335-351-373	Acute Tox. 4 Inhalation, Carc. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1A, STOT RE 2, STOT SE 3 RTI
Prepolymer		57516-88-8	10 - <25	H332-334	Acute Tox. 4 Inhalation, Resp. Sens. 1
dibutyl maleate	203-328-4	105-76-0	2.5 - <10	H317-332-335	Acute Tox. 4 Inhalation, Skin Sens. 1, STOT SE 3 RTI
			2.5 - <10	H332	Acute Tox. 4 Inhalation
Diphenylmethane-diisocyanate, isomers and homologues	618-498-9	9016-87-9	2.5 - <10	H315-317-319-332-3 34-335-351-373	Acute Tox. 4 Inhalation, Carc. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1A, STOT RE 2, STOT SE 3 RTI
Diphenylmethane-2,4'-diisocyanate	227-534-9	5873-54-1	1.0 - <2.5	H315-317-319-332-3 34-335-351-373	Acute Tox. 4 Inhalation, Carc. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1, STOT RE 2, STOT SE 3 RTI
4-methyl-m-phenylene diisocyanate	209-544-5	584-84-9	1.0 - <2.5	H315-317-319-330-3 34-335-351-412	Acute Tox. 1 Inhalation, Aquatic Chronic 3, Carc. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1A, STOT SE 3 RTI
2,6-Toluene di-isocyanate	202-039-0	91-08-7	0.1 - <1.0	H315-317-319-330-3 34-335-351-412	Acute Tox. 1 Inhalation, Aquatic Chronic 3, Carc. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1A, STOT SE 3 RTI

<u>CAS-No.</u>	<u>M-Factors</u>
9052-50-0	0
101-68-8	0
57516-88-8	0
105-76-0	0
	0
9016-87-9	0
5873-54-1	0
584-84-9	0
91-08-7	0

Additional Information:

The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. Keep the container open.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used.

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid dust accumulation in enclosed space.

STORAGE CONDITIONS: Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

7.3 Specific end use(s)

No specific advice for end use available.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

<u>Name</u>	<u>CAS-No.</u>	<u>ACGIH TWA</u>	<u>ACGIH STEL</u>	<u>ACGIH Ceiling</u>
Polypropylene glycol, ethoxylated, toluenediisocyanate polymer	9052-50-0			
4,4'-methylenediphenyl diisocyanate	101-68-8	0.005 PPM		
Prepolymer	57516-88-8			
dibutyl maleate	105-76-0			
Diphenylmethane-diisocyanate, isomers and homologues	9016-87-9			
Diphenylmethane-2,4'-diisocyanate	5873-54-1			
4-methyl-m-phenylene diisocyanate	584-84-9	0.001 PPM	0.005 PPM	
2,6-Toluene di-isocyanate	91-08-7	0.001 PPM	0.005 PPM	

<u>Name</u>	<u>CAS-No.</u>	<u>OSHA PEL</u>	<u>OSHA STEL</u>
Polypropylene glycol, ethoxylated, toluenediisocyanate polymer	9052-50-0		
4,4'-methylenediphenyl diisocyanate	101-68-8	0.02 PPM-CEILIN	
Prepolymer	57516-88-8		
dibutyl maleate	105-76-0		
Diphenylmethane-diisocyanate, isomers and homologues	9016-87-9		
Diphenylmethane-2,4'-diisocyanate	5873-54-1		
4-methyl-m-phenylene diisocyanate	584-84-9	0.04 MGM3, 0.005 PPM	0.15 MGM3, 0.02 PPM
2,6-Toluene di-isocyanate	91-08-7		

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls**Personal Protection****RESPIRATORY PROTECTION:** Respirator with a vapor filter.**EYE PROTECTION:** Tightly fitting safety goggles.**HAND PROTECTION:** Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.**OTHER PROTECTIVE EQUIPMENT:** No Information**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.**9. Physical and Chemical Properties****9.1 Information on basic physical and chemical properties****Appearance:** Tan viscous liquid**Physical State** Liquid**Odor** Slightly sweet**Odor threshold** Not determined**pH** Not determined**Melting point / freezing point (°C)** Not determined**Boiling point/range (°C)** N.D. - N.D.**Flash Point, (°F / °C)** Not determined**Evaporation rate** Not determined**Flammability (solid, gas)** Not determined**Upper/lower flammability or explosive limits** Not determined**Vapour Pressure** Not determined**Vapour density** Not determined**Relative density** 9.1 lb/gallon**Solubility in / Miscibility with water** Not determined**Partition coefficient: n-octanol/water** Not determined**Auto-ignition temperature (°C)** Not determined**Decomposition temperature (°C)** Not determined**Viscosity** 3000-4500 cps**Explosive properties** Not determined**Oxidising properties** Not determined**9.2 Other information****VOC Content g/l:** Not determined**Specific Gravity (g/cm³)** 1.076**10. Stability and Reactivity****10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Container can be pressurized by carbon dioxide due to reaction with humid air and/or water. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Avoid dust accumulation in enclosed space.

10.5 Incompatible materials

No Information

10.6 Hazardous decomposition productsCarbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.**11. Toxicological Information****11.1 Information on toxicological effects****Acute Toxicity:****Oral LD50:** No information available.**Inhalation LC50:** No information available.**Irritation:** No information available.**Corrosivity:** No information available.**Sensitization:** No information available.**Repeated dose toxicity:** No information available.**Carcinogenicity:** No information available.**Mutagenicity:** No information available.**Toxicity for reproduction:** No information available.**STOT-single exposure:** No information available.**STOT-repeated exposure:** No information available.**Aspiration hazard:** No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested.
Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
9052-50-0	Polypropylene glycol, ethoxylated, toluenediisocyanate polymer	0		0	4500	1.5
101-68-8	4,4'-methylenediphenyl diisocyanate	15000 mg/kg oral	>9400 mg/kg	43 ppm vapor 4 hrs	0.000	0.000
57516-88-8	Prepolymer			11	4500	1.5
105-76-0	dibutyl maleate	3730 mg/kg	10000 mg/kg	20.1	20001	5
				11	4500	1.5

9016-87-9	Diphenylmethane-diisocyanate, isomers and homologues	>10000 mg/kg	>9400 mg/kg	0.49 mg/l (4 h, Aerosol. rat)		
5873-54-1	Diphenylmethane-2,4'-diisocyanate		>9400 mg/kg, rabbit			1.5 mg/l (4 h, Aerosol. rat)
584-84-9	4-methyl-m-phenylene diisocyanate			0.48	66	.05
91-08-7	2,6-Toluene di-isocyanate	>5000 mg/kg bw (rat)	9400 mg/kg bw (rabbit)	0.1 mg/l 4hr -Rat	66ppm	0.000

Additional Information:

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):	No information
IC50 72hr (Algae):	No information
LC50 96hr (fish):	No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
9052-50-0	Polypropylene glycol, ethoxylated, toluenediisocyanate polymer	No information	No information	No information
101-68-8	4,4'-methylenediphenyl diisocyanate	>1000 mg/l	No information	>1000 mg/l
57516-88-8	Prepolymer	No information	No information	No information
105-76-0	dibutyl maleate	No information	No information	No information
		No information	No information	No information
9016-87-9	Diphenylmethane-diisocyanate, isomers and homologues	No information	1640 mg/l	>1000 mg/l
5873-54-1	Diphenylmethane-2,4'-diisocyanate	No information	No information	>1000 mg/l
584-84-9	4-methyl-m-phenylene diisocyanate	No information	No information	
91-08-7	2,6-Toluene di-isocyanate	No information	No information	No information

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not regulated for transport according to U.S. DOT, ADR/RID, IMDG, and IATA regulations.
Technical name	Not applicable
14.3 Transport hazard class(es)	Not applicable
Subsidiary shipping hazard	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable
EmS-No.:	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation for the substance or mixture:

U.S. Federal Regulations: As follows -

CERCLA - Sara 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:

Carcinogenicity, Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>%</u>
4,4'-methylenediphenyl diisocyanate	101-68-8	14.58
Diphenylmethane-diisocyanate, isomers and homologues	9016-87-9	7.65
4-methyl-m-phenylene diisocyanate	584-84-9	1.09
2,6-Toluene di-isocyanate	91-08-7	0.27

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

<u>Chemical Name</u>	<u>CAS-No.</u>
4-methyl-m-phenylene diisocyanate	584-84-9
2,6-Toluene di-isocyanate	91-08-7

U.S. Clean Air Act:

EPA Coating Category:	Not applicable
EPA VOC Content Limit (g/l):	Not determined
Product VOC Content (g/l)	50
Thinning Recommendations:	Not applicable
Application Recommendations:	Not applicable

* As per the federal EPA definition for coating categories in 40 CFR 59.401.

** Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

U.S. State Regulations: As follows -**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

No NJ Right-To-Know components exist in this product.

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

California Proposition 65:

WARNING: Cancer - www.P65Warnings.ca.gov

No Proposition 65 Reproductive Toxins exist in this product.

International Regulations: As follows -*** Canadian DSL:**

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

16. Other Information**Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.

H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

Substance and/or Product Properties Changed in Section(s):

- 01 - Identification
- 02 - Hazard Identification
- 08 - Exposure Controls/Personal Protection
- 09 - Physical and Chemical Properties
- 11 - Toxicological Information
- 14 - Transportation Information
- 15 - Regulatory Information

Revision Statement(s) Changed

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

- The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m ³	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration

PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects
IMO	International Maritime Organization
Note P:	The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene
Note 10:	The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

