

Material Safety Data Sheet

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24-Hour Emergency Telephone: 1-800-424-9300

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: : Flexco 220 Moisture-cured polyurethane adhesive

SECTION 2. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). This product is irritating to the eyes. This product may cause sensitization by inhalation and skin contact.

HAZARD STATEMENTS :

CAUTION! IRRITANT. ALLERGEN. Irritating to eyes. May cause sensitization by inhalation and skin contact. Wear suitable gloves, eye/face protection, and respiratory protection. Keep out of the reach of children.

CAS #	Component	Percent
68083-75-0	Urethane Polymer	10-30
1305-78-8	Calcium oxide	7-13
64742-46-7	Petroleum distillates, hydrotreated middle	7-13
101-68-8	Methylene bisphenol isocyanate (MDI)	1-5
6422-86-2	1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	1-5
120-55-8	Diethylene glycol dibenzoate	0.5-1.5

Component Exposure Limits

Calcium oxide (1305-78-8) :

ACGIH:	2 mg/m3 TWA
OSHA (Final):	5 mg/m3 TWA
NIOSH:	2 mg/m3 TWA
Alberta:	2 mg/m3 TWA
British Columbia:	2 mg/m3 TWA
Manitoba:	2 mg/m3 TWA
New Brunswick:	2 mg/m3 TWA
NW Territories:	2 mg/m3 TWA, 4 mg/m3 STEL
Nova Scotia:	2 mg/m3 TWA
Nunavut:	2 mg/m3 TWA, 4 mg/m3 STEL
Ontario:	2 mg/m3 TWAEV
Quebec:	2 mg/m3 TWAEV
Saskatchewan:	2 mg/m3 TWA, 4 mg/m3 STEL
Yukon:	2 mg/m3 TWA, 4 mg/m3 STEL

Methylene bisphenol isocyanate (MDI) (101-68-8) :

ACGIH:	0.005 ppm TWA
OSHA (Final):	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling
NIOSH:	0.005 ppm TWA; 0.05 mg/m ³ TWA, 0.020 ppm Ceiling (10 min); 0.2 mg/m ³ Ceiling (10 min)
Alberta:	0.005 ppm TWA; 0.051 mg/m ³ TWA
British Columbia:	Sensitizer, 0.005 ppm TWA, 0.01 ppm Ceiling, Skin notation
Manitoba:	0.005 ppm TWA
New Brunswick:	0.005 ppm TWA; 0.051 mg/m ³ TWA
NW Territories:	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling
Nova Scotia:	0.005 ppm TWA
Nunavut:	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling
Ontario:	0.005 ppm TWAEV; 0.2 µmol/m ³ TWAEV; 0.02 ppm CEV; 0.8 µmol/m ³ CEV 0.005 ppm TWAEV (designated substance regulation); 0.2 µmol/m ³ TWAEV (designated substance regulation), 0.02 ppm CEV (designated substances regulation); 0.8 µmol/m ³ CEV (designated substances regulation)
Quebec:	0.005 ppm TWAEV; 0.051 mg/m ³ TWAEV
Saskatchewan:	0.005 ppm TWA, 0.015 ppm STEL
Yukon:	0.02 ppm Ceiling; 0.2 mg/m ³ Ceiling

For California (Proposition 65): This product contains no chemicals reportable under Proposition 65.

SECTION 3. HAZARDOUS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Ingestion, skin, and inhalation

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Hypersensitivity to product, allergies, and skin or respiratory disorders

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: This product is irritating to the eyes.

SKIN CONTACT: This product may cause irritation to the skin. Prolonged contact with this product may cause allergic skin sensitization reactions.

INGESTION: Ingestion of this product may cause nausea, vomiting and diarrhea.

INHALATION: This product may cause irritation to the respiratory system. This product may cause sensitization by inhalation.

CARCINOGENICITY: This product does contain chemicals listed by NTP and IARC, and OSHA.

POTENTIAL ENVIRONMENTAL EFFECTS : None identified.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

SKIN CONTACT: In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

INGESTION: For ingestion, flush out mouth with water. If ingestion of a large amount does occur, seek medical attention. Do not induce vomiting.

INHALATION: If inhaled, immediately remove the affected person to fresh air. If the affected person is not breathing, apply artificial respiration. If symptoms persist, get medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS : See Section 9 for Flammability Properties.

This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a moderate fire hazard.

HAZARDOUS COMBUSTION PRODUCTS : Irritating and toxic gases or fumes may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

EXTINGUISHING MEDIA : Dry chemical (preferred), foam, water.

FIRE FIGHTING EQUIPMENT/INSTRUCTIONS : Firefighters should wear full protective clothing including self contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS : Wear appropriate protective equipment and clothing during clean-up.

CONTAINMENT PROCEDURES : Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Scoop up used absorbent into drums or other appropriate container.

ENVIRONMENTAL PRECAUTIONS : Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

CLEAN-UP PROCEDURES : Attempt to reclaim the free product, if this is possible. Shovel the material into waste container. Thoroughly wash the area with water after a spill or leak clean-up. Keep out of the reach of children.

EVACUATION PROCEDURES : None identified.

SPECIAL PROCEDURES : Regulations vary. Consult local authorities before disposal.

SECTION 7. HANDLING AND STORAGE

HANDLING: Avoid getting this material into contact with your skin and eyes. Avoid breathing vapours or mists of this product. Wash hands after handling and before eating. Keep out of reach of children.

STORAGE: Store in a cool, dry, well-ventilated area. Store at ambient temperature and atmospheric pressure. Keep out of sun.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not normally needed. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Wear safety glasses with eye shields.

SKIN PROTECTION: The use of nitrile-latex gloves is recommended.

ENGINEERING CONTROLS: Use general ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige paste	Odor:	Slight latex odor
Physical State:	Paste	pH:	8.0 - 10.0
Vapor Pressure:	N/A	Vapor Density:	1.1 - 1.2
Boiling Point:	>212° F (>100° C)	Melting Point:	N/A
Solubility (H ₂ O):	Soluble	Specific Gravity:	1.3 - 1.6
Evaporation Rate:	Same as water	VOC:	44 g/L
Octanol/H ₂ O Coeff.:	N/A	Flash Point:	N/A
Flash Point Method:	N/A	Upper Flammability Limit (UFL):	N/A
Lower Flammability Limit (LFL):	N/A	Burning Rate:	N/A
Auto Ignition:	N/A		

PHYSICAL PROPERTIES: ADDITIONAL INFORMATION : The data provided in this section is to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Upon decomposition, this may emit fumes of carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic compounds.

INCOMPATIBILITY : This product may react with strong acids, bases and oxidizing agents.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE DOSE EFFECTS :

GENERAL PRODUCT INFORMATION : No information available for the product.

COMPONENT ANALYSIS - LD50/LC50 :

Calcium oxide (1305-78-8) :

Oral LD50 Rat: 500 mg/kg

Petroleum distillates, hydrotreated middle (64742-46-7) :

Inhalation LC50 Rat: 4.6 mg/L/4H; Oral LD50 Rat:7400 mg/kg; Dermal LD50 Rabbit:>2000 mg/kg

Methylene bisphenol isocyanate (MDI) (101-68-8) :

Oral LD50 Rat: 9200 mg/kg

Diethylene glycol dibenzoate (120-55-8) :

Oral LD50 Rat: 2830 mg/kg; Dermal LD50 Rabbit:20 mL/kg

CARCINOGENICITY :

GENERAL PRODUCT INFORMATION : No information available for the product.

COMPONENT CARCINOGENICITY :

Methylene bisphenol isocyanate (MDI) (101-68-8) :

IARC:	Monograph 71 [1999], Supplement 7 [1987], Monograph 19 [1979] (Group 3 (not classifiable))
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SENSITIZATION : This product may be sensitizing by prolonged skin contact or inhalation.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY :

GENERAL PRODUCT INFORMATION : No information available for the product.

COMPONENT ANALYSIS - Ecotoxicity - Aquatic Toxicity :

Calcium oxide (1305-78-8) :

Test & Species		Conditions
96 Hr LC50 Cyprinus carpio	1070 mg/L	[static]
96 Hr LC50 Cyprinus carpio	1070 mg/L	

Petroleum distillates, hydrotreated middle (64742-46-7) :

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	35 mg/L	[flow-through]

SECTION 13. DISPOSAL CONSIDERATION

GENERAL PRODUCT INFORMATION : No additional information available.

COMPONENT WASTE NUMBERS : No EPA Waste Numbers are applicable for this product's components.

DISPOSAL INSTRUCTIONS : Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

SECTION 14. TRANSPORT INFORMATION

Not regulated as dangerous goods.

SECTION 15. REGULATORY INFORMATION

All ingredients are listed within the US EPA TSCA Inventory List.

Component Analysis : This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Methylene bisphenol isocyanate (MDI) (101-68-8)

SARA 313:	1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)
CERCLA:	5000 lb final RQ; 2270 kg final RQ

STATE REGULATIONS :

GENERAL PRODUCT INFORMATION : Other state regulations may apply. Check individual state requirements.

COMPONENT ANALYSIS – STATE : The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Calcium oxide	1305-78-8	Yes	Yes	Yes	Yes	Yes	Yes
Methylene bisphenol isocyanate (MDI)	101-68-8	Yes	Yes	Yes	Yes	Yes	Yes

Additional Regulatory Information

A: General Product Information

Supplier(s) of proprietary component(s) state that these components are contained on the TSCA inventory.

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Urethane Polymer	68083-75-0	Yes	DSL	No
Calcium oxide	1305-78-8	Yes	DSL	EINECS

Petroleum distillates, hydrotreated middle	64742-46-7	Yes	DSL	EINECS
Methylene bisphenol isocyanate (MDI)	101-68-8	Yes	DSL	EINECS
1,4-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	6422-86-2	Yes	DSL	EINECS
Diethylene glycol dibenzoate	120-55-8	Yes	DSL	EINECS

SECTION 16. OTHER INFORMATION

HMIS RATINGS: Health = 2 Flammability = 0

Reactivity = 0 Personal Protective Equipment = B

Hazard rating scale: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe

SECTION 17. WARRANTY STATEMENT

N/A

Flexco Corporation believes the statements, technical information and recommendations contained herein are reliable. They are given without warranty or guarantee of any kind, expressed or implied.

KEY/LEGEND :

NA = Not available or Not Applicable. N/E = Not Established. ACGIH = American Conference of Governmental Industrial Hygienists. NFPA = National Fire Protection Association. EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

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