

## SOPRATAACK FLASHING PART A

Offerte en français

GHS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
		Not Regulated

## SECTION I: IDENTIFICATION

**Use:** Polyurethane adhesive.

**Manufacturer:**

Soprema Canada  
1675 Haggerty Street  
Drummondville (Quebec) J2C 5P7  
CANADA  
Tel.: 819 478-8163

**Distributors:**

Soprema Inc.  
44955 Yale Road West  
Chilliwack (BC) V2R 4H3  
CANADA  
Tel.: 604 793-7100

Soprema USA  
310 Quadral Drive  
Wadsworth (Ohio) 44281  
UNITED STATES  
Tel.: 1 800 356-3521

Soprema USA  
12251 Seaway Road  
Gulfport (Mississippi) 39507  
UNITED STATES  
Tel.: 228 701-1900

**In case of emergency:**

SOPREMA (8:00am to 5:00pm): 1 800 567-1492      CANUTEC (Canada) (24h.): 613 996-6666      CHEMTREC (USA) (24h.): 1 800 424-9300

## SECTION II: HAZARD(S) IDENTIFICATION

**DANGER**

Harmful if swallowed. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation.

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing vapours. Use only outdoors or in a well ventilated area. Wear protective gloves and eye protection. Contaminated work clothing must not be allowed out of the workplace. Dispose of container in accordance with local, regional and national regulations.

## SECTION III: COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

NAME	CAS #	% WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
Asphalt	8052-42-4	30-60	0.5 mg/m <sup>3</sup>	Not available
Bis(2-ethylhexyl) adipate	103-23-1	10-30	Not available	Not available
Oxidized asphalt	64742-93-4	7-13	0.5 mg/m <sup>3</sup>	Not available
4,4'-Methylenediphenyl diisocyanate (4,4'-MDI)	101-68-8	7-13	0.005 ppm	Not available
Polymeric MDI	9016-87-9	3-7	Not available	Not available

*Effects of Short-Term (Acute) Exposure***INHALATION**

**Asphalt:** Exposure is not expected by this route of entry under normal product use. (2)

**MDI:** MDI has a very low vapour pressure. Therefore, airborne exposures are unlikely to occur unless they are heated or form an aerosol or mist during pouring, frothing or spraying operations. Short-term inhalation exposure to isocyanates can cause respiratory and mucous membrane irritation. Symptoms include eye and nose irritation, dry or sore throat, runny nose, shortness of breath, wheezing and laryngitis. Coughing with chest pain or tightness may also occur, frequently at night. These symptoms may occur during exposure or may be delayed several hours. High aerosol concentrations could cause inflammation of the lung tissue (chemical pneumonitis), chemical bronchitis with severe asthma-like wheezing, severe coughing spasms and accumulation of fluid in the lungs (pulmonary edema), which could prove fatal. Symptoms of pulmonary edema may not appear until several hours after exposure and are aggravated by physical exertion. (1)

**SKIN CONTACT**

**Asphalt:** May cause skin irritation, reddening and itching. (2)

**Bis(2-ethylhexyl) adipate:** Non-irritant to very mild irritant based on animal information. (1)

**MDI:** MDI is a severe skin irritant based on animal information. In general, isocyanates can cause skin discolouration (staining) and hardening of the skin after repeated exposures. Skin contact is not expected to result in the absorption of harmful amounts. (1)

**EYE CONTACT**

**Asphalt:** May cause eye irritation. (2)

**Bis(2-ethylhexyl) adipate:** Non-irritant based on animal information. (1)

**MDI:** MDI may cause no irritation or slight eye irritation based on animal information. (1)

**INGESTION**

**Asphalt:** May cause irritation of the mouth, throat and gastrointestinal tract. (2)

**MDI:** There have been no reports of human ingestion of MDI. Animal studies indicate that the toxic effects of the ingestion of MDI are slight. Ingestion could result in irritation and corrosion of the mouth, throat, and digestive tract. Ingestion is not a typical route of occupational exposure. (1)

*Effects of Long-Term (Chronic) Exposure***LUNGS/RESPIRATORY SYSTEM**

**MDI:** Exposure to isocyanates is likely to cause aggravation to individuals with existing respiratory disease, such as chronic bronchitis and emphysema.

**RESPIRATORY SENSITIZATION**

**MDI:** Respiratory sensitization can develop in people working with MDI. The sensitization is usually caused by a very large exposure or by multiple exposures. Although varying periods of exposure (1 day to years) may elapse before sensitization occurs, it develops more often during the first few months of exposure. Sensitized individuals react to

very low levels of MDI (as low as 0.0014 ppm) that have no effect on unsensitized people. At first, the symptoms may appear to be a cold or mild hay fever. However, severe asthmatic symptoms can develop and include wheezing, chest tightness, shortness of breath, difficulty breathing and/or coughing. Fever, chills, general feelings of discomfort, headache and fatigue can also occur. Symptoms may occur immediately upon exposure, within an hour or several hours after exposure or both and/or at night. Typically the asthma improves with removal from exposure (e.g. weekends and vacations) and returns, in some cases, in the form of an "acute attack", on renewed exposure. Sensitized people who continue to work with isocyanates may develop symptoms sooner after each exposure. The number and severity of symptoms may increase. Following removal from exposure, some workers may continue to have persistent respiratory problems such as asthmatic symptoms, bronchial problems and hypersensitivity to isocyanates. Others may recover fully and may gradually lose their sensitivity within several years. Exposure to isocyanates is likely to cause aggravation to individuals with existing respiratory disease, such as chronic bronchitis and emphysema. Cross-sensitization between different isocyanates may occur. (1)

#### SKIN SENSITIZATION

**MDI:** Isocyanates are contact sensitizers. Repeated skin contact with MDI may cause skin sensitization in humans. Further skin contact may result in skin inflammation, rash, itching and staining. Allergic contact dermatitis has developed from occupational contact with MDI. (1)

#### CARCINOGENICITY

**Oxidized asphalt:** In its 2013 monograph (Volume 103), the International Agency for Research on Cancer (IARC) conducted a review of the potential carcinogenicity of bitumen (the European term for asphalt). One of its conclusions was "occupational exposures to oxidized bitumens and their emissions during roofing" are classified in IARC Group 2A, "probably carcinogenic to humans.". However, due to the product form, exposure to such component is unlikely under normal conditions of use.

**MDI:** The risk of cancer associated with exposure to isocyanates has been examined in 4 human population studies. No strong association or consistent pattern has been observed. IARC has determined there is inadequate evidence for the carcinogenicity of MDI in humans. There is limited evidence for the carcinogenicity of a mixture containing MDI and polymeric MDI in experimental animals. IARC has concluded that this chemical is not classifiable as to its carcinogenicity to humans (Group 3). The American Conference of Governmental Industrial Hygienists (ACGIH) has not assigned a carcinogenicity designation to this chemical. The US National Toxicology Program (NTP) has not listed this chemical in its report on carcinogens. (1)

#### TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY

**MDI:** No human or animal information is available. (1)

#### REPRODUCTIVE TOXICITY

**MDI:** No human or animal information is available. (1)

#### MUTAGENICITY

**MDI:** It is not possible to conclude that MDI is mutagenic. No human or animal in vivo studies on MDI have been reported. In one human case report, MDI caused DNA damage in white blood cells after inhalation exposure to 5 to 20 ppb. No conclusions can be drawn from this case report. (1)

#### TOXICOLOGICALLY SYNERGISTIC MATERIALS

**MDI:** No information is available. (1)

### SECTION IV: FIRST-AID MEASURES

#### SKIN CONTACT

Wash with plenty of water. If skin irritation or rash occurs: Get medical advice. Take off immediately all contaminated clothing and wash it before reuse.

#### EYE CONTACT

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.

#### INHALATION

If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center.

#### SWALLOWING

Immediately call a poison center. Rinse mouth.

### SECTION V: FIRE-FIGHTING MEASURES

**FLAMMABILITY:** Non flammable

**FLASH POINT:** Non flammable

**AUTO-IGNITION TEMPERATURE:** Not applicable

**FLAMMABILITY LIMITS IN AIR:** (% en volume) Not applicable

#### COMBUSTION PRODUCTS

Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides and hydrogen cyanide.

#### FIRE FIGHTING INSTRUCTIONS

Evacuate area. Wear self-contained breathing apparatus and appropriate protective clothing in accordance with standards. Approach fire from upwind and fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Always stay away from containers because of the high risk of explosion. Stop leak before attempting to put out the fire. If leak cannot be stopped, and if there is no risk to the surrounding area, let the fire burn itself out. Move containers from fire area if this can be done without risk. Cool containers with flooding quantities of water until well after fire is out.

#### MEANS OF EXTINCTION

Carbon dioxide, dry chemical powder, protein foam, water spray (for large fires). Alcohol resistant foams are preferred for large fires. General purpose synthetic foams or protein foams may work, but much less effectively. Care must be taken since the reaction between water and water-based foam and isocyanates can be vigorous. (1)

### SECTION VI: ACCIDENTAL RELEASE MEASURES

#### RELEASE OR SPILL

Ventilate area. Wear appropriate protective equipment during cleanup. Eliminate all ignition sources. Shut off source of leak if it can be done without risk. Contain the spill. Absorb with inert material such as sand or earth. Sweep or shovel into containers with lids, use clean non-sparkling tools (sp.: plastic) to collect absorbed material. Cover and remove to appropriate well-ventilated area until disposal. Wash spill area with isocyanate decontaminating solution. Prevent entry into waterways, sewers or basements. Dispose of this product according to local environmental regulations.

### SECTION VII: HANDLING AND STORAGE

#### HANDLING

This product and its vapours are toxic. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing mist, vapour or dust. Wash thoroughly after handling. Before handling, it is very important that ventilation controls are operating and protective equipment requirements are being followed. People working with this product would be properly trained regarding its hazards and its safe use. Keep away from heat. Tightly reseal all partially used containers. Do not cut, puncture or weld containers.

#### STORAGE

Store in a cool well-ventilated area out of direct sunlight and away from heat and ignition sources. Keep storage areas clear of combustible materials. No smoking near storage area. Store away from incompatible materials. Store the product according to occupational health and safety regulations and fire and building codes. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Have appropriate fire extinguishers and spill clean-up equipment near storage area. Inspect all containers to make sure they are properly labelled.

## SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

**HANDS:** Wear polyethylene, ethylene vinyl alcohol, butyl rubber, natural rubber, neoprene rubber, nitril rubber, polyvinyl alcohol, polyvinyl chloride or Viton gloves.

**RESPIRATORY:** If the TLV is exceeded, if use is performed in a poorly ventilated confined area, use an approved respirator in accordance with standards.

**EYES:** Wear chemical safety goggles in accordance with standards.

**OTHERS:** Eye bath and safety shower.

**CONTROL OF VAPOURS:** Local exhaust is needed to control vapour and dust level to below recommended limits

## SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Liquid
<b>ODOUR AND APPEARANCE:</b>	Black liquid
<b>ODOUR THRESHOLD:</b>	Not available
<b>VAPOUR DENSITY (air = 1):</b>	Heavier than air
<b>EVAPORATION RATE (Butyl acetate = 1):</b>	Not available
<b>BOILING POINT (760 mm Hg):</b>	Not available
<b>FREEZING POINT:</b>	Not available
<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1):</b>	1.006 kg/L
<b>SOLUBILITY IN WATER (20°C):</b>	Not soluble
<b>VOLATILE ORGANIC COMPOUND CONTENT:</b>	0g/L
<b>VISCOSITY:</b>	14 500 cP (Visco Brookfield LVT)

## SECTION X: STABILITY AND REACTIVITY

**STABILITY:** This material is stable.

**INCOMPATIBILITY:** Water, amines, alcohol, strong acids, strong bases, strong oxidizing agents, amides, phenols, mercaptans, urethanes, ureas and surface active compounds.

**HAZARDOUS DECOMPOSITION PRODUCTS:** 4,4'-Methylene dianiline (formed by reaction of MDI with water).

**CONDITIONS TO AVOID:** Moisture, heat direct sunlight.

**HAZARDOUS POLYMERISATION:** None.

## SECTION XI: TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL DATA

**Bis(2-ethylhexyl) adipate:** (1)

LD<sub>50</sub> (oral, rat): 5 600 mg/kg

LD<sub>50</sub> (dermal, rabbit): 8 410 mg/kg

**MDI:** (1)

LC<sub>50</sub> (rat): 490 mg/m<sup>3</sup> (4-hour exposure - aerosol)

LD<sub>50</sub> (oral, rat): Greater than 10 000 mg/kg

LD<sub>50</sub> (dermal, rabbit): Greater than 10 000 mg/kg

### Effects of Short-Term (Acute) Exposure

#### INHALATION

**MDI:** MDI has a very low vapour pressure and it is difficult to achieve vapour concentrations necessary for inhalation toxicity testing. Therefore, inhalation toxicity studies have focused on the effects of the aerosol. No significant effects were found when rats were exposed to 2, 5 and 15 mg/m<sup>3</sup> of MDI aerosol for 6 hours/day, 5 days/week for 2 weeks. (1)

#### EYE IRRITATION

**Bis(2-ethylhexyl) adipate:** Non-irritant. (1)

**MDI:** MDI has caused no irritation or slight irritation of the eyes. (1)

#### SKIN IRRITATION

**Bis(2-ethylhexyl) adipate:** Non-irritant to very mild irritant. (1)

**MDI:** MDI is a severe skin irritant. (1)

#### INGESTION

**MDI:** Rats were given daily doses of 4.3 to 5 g/kg for 5 days. The only effect was a slight enlargement of the spleen in 2 of 5 rats.(1)

### Effects of Long-Term (Chronic) Exposure

#### INHALATION:

**MDI:** No information available. (1)

#### CARCINOGENICITY

**MDI:** There is no animal information on the carcinogenicity of MDI itself. In one study, polymeric MDI containing 44.8-50.2% monomeric MDI was tested for carcinogenicity by inhalation in rats. An increased incidence of lung tumours was observed. IARC has determined there is limited evidence for the carcinogenicity of a mixture containing monomeric and polymeric MDI to experimental animals. (1)

#### RESPIRATORY SENSITIZATION

**MDI:** No information available. (1)

#### MUTAGENICITY

**MDI:** It is not possible to conclude that MDI is mutagenic. (1)

#### SKIN SENSITIZATION

**Bis(2-ethylhexyl) adipate:** Probably not a skin sensitizer. (1)

**MDI:** The sensitizing potency of MDI was investigated using the mouse ear-swelling test (MEST). The dose required to sensitize 50% of the animals was 0.73 mg/kg. In this test, MDI was less potent than hexamethylene diisocyanate (HDI) and dicyclohexylmethane diisocyanate (HMDI), but more sensitizing than toluene diisocyanate (TDI). Cross reactivity was observed between MDI and HDI, HMDI and TDI. (1)

## SECTION XII: ECOLOGICAL INFORMATION

#### ENVIRONMENTAL EFFECTS:

Do not allow product or runoff from fire control to enter grounds, basements, storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. Provincial and federal regulations may require that environmental and / or agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities. May be harmful to aquatic life.

## SECTION XIII: DISPOSAL CONSIDERATIONS

#### WASTE DISPOSAL:

This product is considered as dangerous material. Consult local, state, provincial or territory authorities to know disposal methods. This material is also known as dangerous waste by RCRA (USA); disposal should follow EPA regulations.

## SECTION XIV: TRANSPORT INFORMATION

This product is not regulated by DOT and TDG.

## SECTION XV: REGULATORY INFORMATION

**DSL:** All constituents of this product are included in the Domestic Substances List (DSL – Canada).

**TSCA:** All constituents of this product are included in the Toxic Substances Control Act Inventory (TSCA – USA).

**Prop 65:** This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

**GLOSSARY**

<b>ASTM:</b>	American Society for Testing and Materials (United States)
<b>CAS:</b>	Chemical Abstract Services
<b>CSA:</b>	Canadian Standardization Association
<b>DOT:</b>	Department of Transportation (United States)
<b>EPA:</b>	Environmental Protection Agency (United States)
<b>GHS</b>	Globally Harmonized System
<b>LD<sub>50</sub>/LC<sub>50</sub>:</b>	Less high lethal dose and lethal concentration published
<b>NIOSH:</b>	National Institute for Occupational Safety and Health (United States)
<b>RCRA:</b>	Resource Conservation and Recovery Act (United States)
<b>TDG:</b>	Transportation of Dangerous Goods (Canada)
<b>TLV-TWA:</b>	Threshold Limit Value – Time-Weighted Average

**References:**

- (1) CHEMINFO (2016) Canadian Centre for Occupational Health and Safety, Hamilton (Ontario) Canada
- (2) Manufacturer's SDS

The Safety Data Sheets of SOPREMA Canada are available on Internet at the following site: [www.soprema.ca](http://www.soprema.ca)

**Justification of the update:**

- New product.

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