

MATERIAL SAFETY DATA SHEET
SOPRASTAR ADHESIVE
SOPRASTAR ADHESIVE TROWEL GRADE

Offerte en français

GHS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
		<p>ADHESIVE Class 3 UN 1133 P.G.: III</p>

SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Use: Cold adhering liquid for elastomeric bituminous membrane.

Formula number: 205.2 - 284

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

In case of emergency: CHEMTREC (USA) (24h.): 1 800 424-9300

EMERGENCY OVERVIEW!!!

Black paste with strong solvent odour. **DANGER!** This product and its vapours are flammable. The vapours are heavier than air and may spread long distances. Distant ignition (such as a pilot light, and any object that sparks, such as an electric motor) and flash back are possible. Irritating and/or toxic gases or fumes may be generated by thermal decomposition or combustion.

Toxic by inhalation. May cause skin, eye and respiratory tract irritation. May be harmful or fatal if swallowed. Ingestion of the product can cause severe lung injury when aspirated. Inhalation of high concentrations of this product may cause central nervous system (CNS) depression (headache, nausea, dizziness, drowsiness, incoordination and unconsciousness).

SECTION II. COMPOSITION AND INFORMATION ON DANGEROUS INGREDIENTS

NAME	CAS #	% WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
Asphalt	8052-42-4	30-60	0.5 mg/m ³	Not established
Xylene	1330-20-7	10-30	100 ppm	150 ppm

SECTION III: POTENTIAL HEALTH EFFECTS

Effects of Short-Term (Acute) Exposure

INHALATION

Inhalation of vapours of xylene can occur while using the product.

Xylene:

The main effect of inhaling xylene vapour is depression of the central nervous system (CNS), with symptoms such as headache, dizziness, nausea and vomiting. Volunteers have tolerated 100 ppm, but higher concentrations become objectionable. Irritation of the nose and throat can occur at approximately 200 ppm after 3 to 5 minutes. Exposures estimated at 700 ppm have caused nausea and vomiting. Extremely high concentrations (approximately 10000 ppm) could cause incoordination, loss of consciousness, respiratory failure and death. Reversible liver and kidney damage has been reported in cases of severe xylene exposure. Results of short-term studies on human volunteers indicate that xylenes can cause neurobehavioral effects such as impaired short-term memory and reaction time (300 ppm mixed xylenes, with exercise) and alterations in body balance (65 to 400 ppm m-xylene). (1)

Asphalt:

Exposure is not expected by this route of entry under normal product use.

SKIN CONTACT

Frequent or prolonged contacts can remove the natural fat from the skin and may cause redness, skin irritation and dermatitis.

Xylene:

Studies have shown irritation, redness and a burning sensation can result from contact. These effects are reversible shortly (usually within 1 hour) after the contact stops. Xylene liquid or vapour can be absorbed through the skin, but not as readily as when inhaled or ingested. Significant harmful effects are not expected by this route of exposure. (1)

Asphalt:

Asphalt may cause irritation to the skin. (2)

EYE CONTACT

The vapours may cause eye irritation with tearing and discomfort, redness and pain. Eye contact with the product may cause moderate irritation.

Xylene:

The liquid is probably a mild irritant, based on animal information (1)

Asphalt:

Asphalt, in this form is not expected to cause eye irritation. (2)

INGESTION

It is unlikely that toxic amounts of this product would be ingested with normal handling and use. (1)

Xylene:

Based on animal information, xylene is only slightly toxic by ingestion. Ingestion of large amounts is likely to cause CNS effects such as dizziness, nausea and vomiting. (1)

Asphalt:

No information available.

Effects of Long-Term (Chronic) Exposure
--

SKIN CONTACT**Xylene:**

Repeated contact can produce dermatitis (dryness and cracking) due to degreasing action. (1)

Asphalt:

Repeated or prolonged contact may cause irritation. (2)

INHALATION**Xylene:**

See effects described below.

Asphalt:

Exposure is not expected by this route of entry under normal product use.

NERVOUS SYSTEM EFFECTS**Xylene:**

Long-term xylene exposure may cause harmful effects on the central nervous system, but there is not enough information available to draw firm conclusions. Symptoms such as headaches, irritability, depression, insomnia, agitation, extreme tiredness, tremors, and impaired concentration and short-term memory have been reported following long-term occupational exposure to xylene and other solvents. This condition is sometimes generally referred to as "organic solvent syndrome". (1)

LIVER AND KIDNEY EFFECTS**Xylene:**

A number of case reports and occupational studies have suggested that liver and kidney damage may result from long-term occupational exposure to xylene. However, it is not possible to attribute these effects directly to xylene exposure because generally there was exposure to other chemicals at the same time, particularly other solvents, and there was no information provided on the exposure levels or duration of exposure. In a recent study, 175 employees were exposed to a mean xylene concentration of 21 ppm for an average of 7 years. Liver and kidney effects were not reported. Xylenes accounted for greater than 70% of the total exposure. (1)

Asphalt:

No information available.

CARCINOGENICITY**Xylene:**

The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence for the carcinogenicity of xylene in humans. 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 designated this chemical as not classifiable as a human carcinogen (A4). The US National Toxicology Program (NTP) has not listed this chemical in its report on carcinogens. (1)

TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY**Xylene:**

Several human population studies have suggested a link between exposure to organic solvents (including xylene) and increased occurrence of miscarriages or birth defects in children. However, no conclusions can be made on the effects of exposure to xylenes on the unborn child because of the inadequacy of the available information. Xylene (mixed isomers) has produced fetotoxic effects (delayed ossification and behavioural effects) in animals, in the absence of maternal toxicity. Animal information suggests that xylenes are not

teratogenic or embryotoxic at exposure levels that are not harmful to the mother. (1)

REPRODUCTIVE TOXICITY**Xylene:**

An increase in menstrual disorders has been reported in women exposed to organic solvents such as benzene, toluene and xylenes. It is not possible to attribute these effects to xylenes in particular. The limited animal information available suggests that xylenes do not cause reproductive effects. (1)

MUTAGENICITY**Xylene:**

There have been a few studies investigating the mutagenic potential of mixed xylenes in workers exposed occupationally. No conclusions can be drawn because of limitations such as small study populations and exposure to other chemicals at the same time. (1)

TOXICOLOGICALLY SYNERGISTIC MATERIALS**Xylene:**

Exposure to related solvents, such as benzene, toluene and ethanol (alcohol) slows the rate of clearance of xylenes from the body, thus enhancing its toxic effects. Exposure to xylene in combination with other solvents has had an additive effect with respect to harming the hearing of rats. (1)

POTENTIAL FOR ACCUMULATION**Xylene:**

The three xylene isomers are readily absorbed by inhalation and ingestion and are widely distributed throughout the body. A small amount may be absorbed through the skin. Xylenes are largely broken down by the liver and most of the absorbed material is rapidly excreted in the urine as breakdown products. Small amounts are eliminated unchanged in the exhaled air. There is low potential for accumulation. (1)

SECTION IV: FIRST AID MEASURES

SKIN CONTACT

Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, get medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. If irritation persists, get medical attention.

INHALATION

In case of gas or vapour inhalation, move victim to fresh air. If breathing is difficult, give oxygen. If breathing stops, give respiratory assistance. Obtain medical assistance.

SWALLOWING

Do not induce vomiting. Immediately contact local poison control centre. Should vomiting occur, be sure to keep the victim's head below hips to avoid aspiration of vomit into the lungs. Maintain the victim at rest and obtain immediate medical attention.

SECTION V: FIRE-FIGHTING MEASURES
--

FLAMMABILITY: Flammable Class 1C (NFPA)

EXPLOSION DATA: Sensitivity to mechanical impact: No
Sensitivity to static charge: Can accumulate static charge by flow.

FLASH POINT: 33°C (ASTM D-93)

AUTO-IGNITION TEMPERATURE: 527°C (xylene)

FLAMMABILITY LIMITS IN AIR: (% in volume) 1 – 7 (xylene)

FIRE AND EXPLOSION HAZARDS

This product and its vapours are easily ignited by heat, sparks or flames. Vapours may form explosive mixtures with air. Vapours are heavier than air and may travel a considerable distance to a source of ignition and flash back to a leak or open container. The product may ignite on contact with strong oxidizing agents. Do not cut, puncture or weld empty containers.

COMBUSTION PRODUCTS

Irritating and/or toxic gases or fumes may be generated by thermal decomposition or combustion. Toxic and/or irritating gases or fumes can emanate from empty containers when submitted to high temperatures: CO, CO₂, Aldehydes, ketone, acrolein, halogenated compound.

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

Anti-alcohol or universal foam, dry chemical powder, CO₂, sand. Use of water spray when fighting fire may be inefficient because of the low flash point of the product.

SECTION VI: ACCIDENTAL RELEASE MEASURES

RELEASE OR SPILL

Ventilate area. Wear appropriate protective equipment during cleanup. Eliminate all sources of ignition. Shut off source of leak if you can do it without risk. Contain the spill. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Sweep or shovel into containers with lids, use clean non-sparking tools to collect absorbed material. Cover and remove to appropriate well-ventilated area until disposal. Do not touch or walk through spilled material. Wash spill area with soap and water. Prevent entry into waterways, sewers, basements or confined areas. Dispose of the product according to the environmental regulations.

SECTION VII: HANDLING AND STORAGE

HANDLING

This product is flammable and 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. Eliminate all ignition sources (e.g. sparks, open flames, hot surfaces). Keep away from heat. Ground transfer containers to avoid static accumulation. 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 gloves made from polyvinyl alcohol (PVA) or viton.

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

PHYSICAL STATE:	Paste
ODOUR AND APPEARANCE:	Black paste with strong solvent odour.
ODOUR THRESHOLD:	Not available
VAPOUR DENSITY (air = 1):	Heavier than air
EVAPORATION RATE (Butyl acetate = 1):	0.7 (xylene)
BOILING POINT (760 mm Hg):	Not available
FREEZING POINT:	Not available
SPECIFIC GRAVITY (H₂O = 1):	0.94 kg/L
SOLUBILITY IN WATER (20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (V.O.C.) CONTENT:	249 g/L

SECTION X: STABILITY AND REACTIVITY

STABILITY: This material is stable.

CONDITIONS OF REACTIVITY: Avoid excessive heat

INCOMPATIBILITY: Basis, acids and strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: None identified.

HAZARDOUS POLYMERISATION: None

SECTION XI: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA

Xylene: (1)

LC50 (rat): 6350 ppm (4-hour exposure) (unspecified isomers and ethylbenzene)

LD50 (oral, rat): 5400 mg/kg

LD50 (dermal, rabbit): 12180 mg/kg; greater than 1700 mg/kg (mixed xylenes)

Asphalt: Not available.

Effects of Short-Term (Acute) Exposure

INHALATION

Xylene:

The major effect of xylene inhalation is on the central nervous system (CNS). There is initial excitation followed by depression, drowsiness, incoordination, and unconsciousness at approximately 2000 ppm. Death at higher concentrations is from respiratory failure due to CNS depression and/or accumulation of fluid in the lungs (pulmonary oedema). Irritation of the respiratory tract, causing a decrease in the respiratory rate, has been reported. This concentration is expected to produce intolerable eye, nose and throat irritation (sensory irritation) in humans. Behavioural effects such as effects on learned behaviours and avoidance conditioning have been observed in animals following short-term inhalation. Hearing loss, mainly at mid-frequencies, has been observed in rats following short-term exposures (800 ppm and above for 6 weeks or 1450 ppm for 3 days) to xylene. A no-effect level was not determined and reversibility was not assessed. (1)

Asphalt:

No information available.

EYE IRRITATION

Xylene:

Application of xylene caused mild irritation and very slight, transient corneal damage in rabbits. (1)

Asphalt:

No information available.

SKIN IRRITATION

Xylene:

A single application of an unspecified amount of xylenes caused irritation and swelling in rabbits and guinea pigs. Application of 0.5 ml of the xylene mixture to rabbit skin for 24 hours caused moderate irritation. Repeated application, 10-20 times over a 2 to 4 week period, of xylene to rabbit skin caused moderate to marked irritation, swelling and tissue death. (1)

Asphalt:
No information available.

Effects of Long-Term (Chronic) Exposure

TARGET ORGANS

Xylene:
Animal studies have provided little evidence of damage to the liver, kidney or lungs, nor any other significant long-term health effects following long-term inhalation. (1)

Asphalt:
No information available.

CARCINOGENICITY

Xylene:
IARC has determined that there is inadequate evidence for carcinogenicity of xylene in animals. (1)

Asphalt:
No information available.

REPRODUCTIVE EFFECTS

Xylene:
No harmful reproductive effects were noted in animal studies. (1)

Asphalt:
No information available.

TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY

Xylene:
In three studies, fetotoxic effects (delayed ossification and behavioural effects) were observed in the offspring of rats exposed by inhalation to 500 ppm mixed xylenes with up to 20% ethylbenzene. In another study, fetotoxicity (decreased weight) was observed in the female offspring of rats exposed to up to 500 ppm of mixed xylenes (12.8% ethylbenzene). No signs of maternal toxicity were observed in these studies. In other studies where rats and mice were exposed by inhalation or ingestion, harmful effects in the offspring (teratogenicity, embryotoxicity and/or fetotoxicity) were either not observed or were observed in the presence of significant harmful effects in the mothers. (1)

Asphalt:
No information available.

MUTAGENICITY

Xylene:
Negative results have been consistently obtained in a variety of studies using live animals and cultured cells. (1)

Asphalt:
No information available.

SECTION XII: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS

Do not allow product or runoff from fire control to enter 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 other 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 listed as hazardous waste. Consult local, state, provincial or territory authorities to know disposal methods. Also listed as hazardous waste by the RCRA (USA); waste disposal as to follow EPA regulations. Do not dispose of waste with normal garbage or sewers systems.

SECTION XIV: TRANSPORT INFORMATION

CLASSIFICATION (TDG - DOT): Class 3
IDENTIFICATION NUMBER: UN 1133
SHIPPING NAME: Adhesive
PACKING GROUP: III
CONTAINERS ARE IN CONFORMITY WITH STANDARDS.

SECTION XV: REGULATORY INFORMATION

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

TSCA: All constituents of this product are included on the Toxic Substances Control Act Inventory (TSCA – United States).

HMIS (USA):		NFPA (USA):	
Health:	2	Health:	2
Flammability:	3	Flammability:	3
Physical hazard:	0	Instability:	0
Protective equipment:	B	Specific hazard:	W

SECTION XVI: OTHER INFORMATION

Glossary:

ANSI: American National Standards Institute
ASTM: American Society for Testing and Materials
CAS: Chemical Abstract Services
CSA: Canadian Standardisation Association
DOT: Department of Transportation (United States)
EPA: Environmental Protection Agency (United States)
HMIS: Hazardous Material Information System
LD50/LC50: Less high lethal dose and lethal concentration published
NFPA: National Fire Protection Association (United States)
OSHA: Occupational Safety & Health Administration (United States)
RCRA: Resource Conservation and Recovery Act (United States)
TDG: Transportation of Dangerous Goods
TLV-TWA: Threshold Limit Value – Time-weighted average
WHMIS: Workplace Hazardous Materials Information System (Canada)

References:

- (1) CHEMINFO (2010) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada.
- (2) Material Safety Data Sheet of the supplier.

Code of MSDS: CA U DRU SS FS 141
This MSDS has been prepared by: Marie-Claude Fontaine
mcfontaine@soprema.ca

For more information: 1-800-567-1492

The Material Safety Data Sheets of SOPREMA Canada are available on Internet at the following site: <http://www.soprema.ca>

Justification of the update:

- New format.

This MSDS contains all the information required by ANSI Z-400.1-1998 standard (United States), by regulation 29 CFR Part 1910.1200 of the Hazard Communication Standard of OSHA, and is in accordance with standard DORS/88-66 OF WHMIS Canada.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. 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 that exist.