SOPREMA
We've got you covered

SAFETY DATA SHEET
ELASTOCOL 500 AEROSOL

Offerte en français

GHS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
		 **AEROSOL** **Class 2.1** **UN 1950** **P.G.: None**

SECTION I: IDENTIFICATION

Use: Used to prime concrete and metal surfaces on civil engineering structures in order to improve the adhesion of torch-applied waterproofing membranes.

Manufacturer:
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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

Extremely flammable aerosol. Extremely flammable gas. Contains gas under pressure; may explode if heated. Highly flammable liquid and vapour. Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. Harmful if swallowed. May cause respiratory irritation or drowsiness or dizziness. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause damage to the central nervous system through prolonged or repeated exposure if inhaled.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Keep away from heat, sparks, open flames and hot surfaces. Do not spray on an open flame or other ignition source. No smoking. Use explosion proof electrical equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not eat or drink when using this product. Avoid breathing vapours. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Wear protective gloves, eye protection and an organic vapour respirator. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. 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
Acetone	67-64-1	30-60	250 ppm	500 ppm
Propane	74-98-6	10-30	1 000 ppm	Not established
Oxidized asphalt	64742-93-4	7-13	0.5 mg/m³	Not established
Toluene	108-88-3	7-13	20 ppm	Not established
Asphalt	8052-42-4	5-10	0.5 mg/m³	Not established
Isobutane	75-28-5	3-7	Not established	1000 ppm

Effects of Short-Term (Acute) Exposure

SKIN CONTACT

Toluene: Toluene is a moderate skin irritant, based on animal evidence. Prolonged contact may cause dermatitis (dry, red skin). Liquid toluene is absorbed through the skin slowly. Therefore, harmful effects are not expected by this route of exposure. Despite widespread use of toluene, there are no reports of skin sensitization. (1)

Asphalt: Asphalt may cause skin irritation. (2)

Acetone: Acetone is a non-irritant to very mild irritant, based on animal and limited human information. The risk of developing health effects following the absorption of acetone through unbroken skin is very slight. (1)

Propane and Isobutane: The gas does not affect the skin. (1)

EYE CONTACT

Toluene: Toluene is a mild eye irritant, based on animal evidence. Very short exposure (3 to 5 minutes) to the vapour has caused slight eye irritation at 300 ppm. Longer exposures (6 to 7 hours) to concentrations above 100 ppm have also caused slight irritation. Alterations in vision, for example, reduced acuity and suppressed colour vision, have been documented following exposure to mixed solvents. It is not possible to attribute these effects to toluene directly. (1)

Asphalt: Asphalt may cause eyes irritation. (2)

Acetone: Acetone is a severe irritant based on animal and limited human information. (1)

Propane, Isobutane: The gas does not cause eye irritation. (1)

INHALATION

Toluene: The main effect of inhaling toluene vapour is on the CNS. Symptoms are related to exposure concentration. At approximately 50 ppm, slight drowsiness and headache have been reported. Irritation of the nose, throat and respiratory tract has occurred between 50 and 100 ppm. Concentrations of about 100 ppm have caused fatigue and dizziness; over 200 ppm has caused symptoms similar to drunkenness (giddiness), numbness, and mild nausea; over 500 ppm has caused mental confusion and incoordination. At higher concentrations (estimated at 10 000 ppm) further depression of the CNS can result in unconsciousness and death. Most serious incidences of exposure have occurred when the vapour has accumulated in confined spaces. (1)

Asphalt: Asphalt exposure is not expected by this route.

Acetone: In one study, volunteers exposed to concentrations up to 500 ppm reported no harmful effects. In other studies, concentrations of approximately 300-500 were reported to cause slight irritation of the nose and throat. Exposure to 250 ppm for 4 hours has caused mild effects on performance in some behavioural tests (auditory tone discrimination and a mood test). As concentrations approach 1 000 ppm, noticeable irritation has occurred and some people have reported headaches, light-headedness

and tiredness. Inhalation of concentrations higher than 2 000 ppm can cause dizziness, a feeling of drunkenness, drowsiness, nausea and vomiting. Unconsciousness may result if exposure is extremely high (greater than 10 000 ppm). Intolerable nose and throat irritation would also occur at these concentrations. Even higher concentrations can cause collapse, coma and death. (1)

Propane: At air concentrations below 1 000 ppm propane is virtually non-toxic. Brief exposures to 10,000 ppm cause no symptoms; 100 000 ppm can produce slight dizziness after a few minutes of exposure, but is not noticeably irritating to the nose and throat. Propane is a simple asphyxiant. High concentrations of propane can displace oxygen and cause asphyxiation. (1)

Isobutane: Low toxicity. Isobutane can have CNS and asphyxiant effects at high concentrations – well above the lower explosion limit of 1.8% (18 000 ppm). (1)

INGESTION

Toluene: Toluene is readily absorbed following ingestion producing CNS depression. Symptoms will be similar to those described for inhalation. Toluene may be aspirated, which is the inhalation of a chemical into the lungs, during ingestion or vomiting. Severe lung irritation, damage to the lung tissues and death may result. Ingestion is not a typical route of occupational exposure. (1)

Asphalt: No information available.

Acetone: Ingestion is not a typical route of occupational exposure. Several studies report no effects or minor effects (slight drowsiness) in people who ingested up to 20 grams/day for several days. Animal toxicity information also suggests that acetone is not very toxic following ingestion. If acetone is aspirated (breathed into the lungs during ingestion or vomiting) it can cause severe, life-threatening lung injury. Animal information suggests that acetone would be difficult to aspirate because it evaporates so quickly. Based on its physical properties, acetone can be aspirated into the lungs during ingestion or vomiting. (1)

Propane, Isobutane: Not applicable to gases.

Effects of Long-Term (Chronic) Exposure

NERVOUS SYSTEM

Toluene: Numerous studies of rotogravure printers, painters and rubberized-matting workers with chronic exposure to toluene are inconclusive about chronic CNS damage. Some studies report changes such as memory loss, sleep disturbances, loss of ability to concentrate, or incoordination, while others report no effects. Recent studies using sensitive neurobehavioral tests have shown altered scores for exposed workers but whether or not these indicate CNS damage is not clear. Most studies reporting kidney damage in people result from solvent abuse (for example, glue-sniffing). These extreme exposures are not relevant to occupational situations. In epidemiological studies on workers exposed long-term to levels up to 200 ppm, there was no clear evidence of kidney damage. Occupational exposure to up to 500 ppm toluene has not been associated with liver effects. There is some evidence to suggest that long-term exposure to toluene may affect hearing. However, the limited information available does not allow a conclusion to be drawn. Although minor changes in blood parameters have been observed, it is generally accepted that toluene does not cause significant blood disorders. (1)

Asphalt: No information available.

Acetone: No conclusions can be drawn from the human information located. Studies in animals have not shown neurotoxic effects from acetone. (1)

Propane, Isobutane: No long-term effects have been reported from exposure to these chemicals.

SKIN

Acetone: Prolonged or repeated contact may cause defatting of the skin and produce dermatitis (dryness, irritation, redness and cracking). (1)

SKIN SENSITIZATION

Acetone: Acetone is not a skin sensitizer. (1)

HEART/BLOOD VESSELS

Acetone: No statistically significant differences in mortality from circulatory system or heart disease were observed in 948 employees exposed to up to 1 070 ppm acetone for up to 23 years, when compared with the general United States population. (1)

BLOOD/BLOOD FORMING SYSTEM

Acetone: No significant changes in blood composition or chemistry were found in 60 workers who had worked at least 5 years in the acetate fibre manufacturing industry (exposures of 550-1 050 ppm). (1)

CARCINOGENICITY

Toluene: There have been several human population studies which have examined the possible relationship between toluene exposure and cancer. Cancers of most sites were not significantly associated with toluene exposure in any study. Stomach cancer mortality, lung cancer rates and colorectal cancers were evaluated in some studies, but not others. Considering the multiple exposures in most studies and the inconsistencies in findings, it is not possible to conclude that toluene exposure is associated with cancer in humans. The International Agency for Research on Cancer (IARC) has concluded there is inadequate evidence for the carcinogenicity of toluene 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)

Oxidized asphalt: In its 2013 monograph (Volume 103), 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.

Acetone: Acetone is not known to be a carcinogen. IARC has not evaluated the carcinogenicity of this chemical. ACGIH has designated this chemical as not classifiable as a human carcinogen (A4). NOTE: ACGIH has published a Notice of Intended Change to remove the designation of A4 (not classifiable as a human carcinogen). The NTP has not listed this chemical in its report on carcinogens. (1)

Propane, Isobutane: There is no human or animal information available. IARC has not evaluated the carcinogenicity of these chemicals. ACGIH has not assigned a carcinogenicity designation to these chemicals. The NTP has not listed these chemicals in its report on carcinogens. (1)

TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY

Toluene: Toluene is a developmental toxicity hazard, based on information obtained from animal studies. Fetotoxicity (reduced foetal weight), behavioural effects (effects on learning and memory) and hearing loss (in males) have been observed in the offspring of rats exposed by inhalation to 1 200 or 1 800 ppm toluene. These effects were observed in the absence of maternal toxicity. A detailed review of toluene and its potential to cause teratogenicity/embryotoxicity in occupational situations has been published. This review concludes that although many occupational studies have evaluated general solvent exposure and pregnancy outcomes, few studies have specifically investigated toluene exposure. Most of these studies have involved exposure to solvents in general or to certain solvent classes, with toluene exposure addressed as a co-exposure or identified as a common exposure in a sub-group. Outcomes of concern included spontaneous abortion (miscarriage) and teratogenicity (congenital malformations). (1)

Acetone: The information located is not sufficient to conclude that acetone causes developmental toxicity. No conclusions can be drawn based on the limited human information available. In animal studies, inhalation of acetone caused fetotoxicity in rats and mice and embryotoxocity in mice, but only at concentrations that also caused maternal toxicity. (1)

Asphalt, Propane, Isobutane: There is no human or animal information available.

REPRODUCTIVE TOXICITY

Toluene: No conclusions can be drawn based on the available human information. Reproductive effects have not been observed in animal studies. A review of toluene and its potential to cause reproductive toxicity in workers has been published. (1)

Acetone: The information located is not sufficient to conclude that acetone causes reproductive toxicity. No conclusions can be drawn from the limited human information available. In an oral study in rats, effects on sperm were observed at a dose that caused significant other toxicity. (1)

Asphalt, Propane, Isobutane: There is no human or animal information available.

MUTAGENICITY

Toluene: Results from the available human studies are inconclusive. Both positive and negative results have been obtained in human studies, but no studies were carried out with toluene exposure only, or with adequate control of other factors. (1)

Acetone: Acetone is not known to be a mutagen. No human information was located. There are no confirmed studies that show mutagenicity in live animals. (1)

Asphalt, Propane, Isobutane: There is no information available.

TOXICOLOGICALLY SYNERGISTIC MATERIALS

Toluene: Exposure to other solvents such as benzene, xylene and ethanol (alcohol) slows the rate of clearance of toluene from the body, thereby enhancing the toxicity of toluene. (1)

Acetone: A major effect of acetone is its enhancement of the toxicity of many other chemicals. Many occupational situations that involve acetone exposure also involve exposures to other potentially harmful chemicals. However, no human information on synergistic effects was located. (1)

Asphalt, Propane, Isobutane: There is no information available.

POTENTIAL FOR ACCUMULATION

Toluene: Toluene is readily absorbed by inhalation or ingestion and tends to be deposited more in tissues that are fatty or have a rich blood supply (e.g. brain, liver, kidney, fat). Toluene is metabolized in the liver and excreted by the kidneys in the urine. It can also be exhaled unchanged. (1)

Acetone: Acetone does not accumulate. It is a normal by-product of mammalian metabolism and is found in virtually every organ and tissue, and in the blood. Acetone can enter the body by inhalation, ingestion or skin contact. It is metabolized by at least two pathways to compounds that are used by the body to make glucose and other products of intermediary metabolism, with the generation of carbon dioxide. Acetone is excreted both unchanged, and following metabolism, mainly as carbon dioxide. (1)

Asphalt, Propane, Isobutane: There is no information available.

SECTION IV: FIRST-AID MEASURES

SKIN CONTACT

Wash with plenty of water. If skin irritation 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

Remove person to fresh air and keep comfortable for breathing. Call a poison center if you feel unwell.

SWALLOWING

Immediately call a poison center. Do NOT induce vomiting. Rinse mouth.

SECTION V: FIRE-FIGHTING MEASURES

FLAMMABILITY: Flammable aerosol
EXPLOSION DATA: Sensitivity to mechanical impact: No.
Sensitivity to static charge: Can accumulate static charge by flow.
FLASH POINT: -104°C (ASTM D93)
AUTO-IGNITION TEMPERATURE: Not available
FLAMMABILITY LIMITS IN AIR: (% in volume)
1.2 – 7.1 (toluene)

FIRE AND EXPLOSION HAZARDS

Extremely flammable gas. This aerosol will readily ignite under the action of heat, sparkles 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, CO_2, 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 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.

EXTINGUISHING MEDIA

Foam, CO_2 powder, sand, chemical powder.

SECTION VI: ACCIDENTAL RELEASE MEASURES

RELEASE OR SPILL

Ventilate area. Wear appropriate protective equipment during clean-up. 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 material according to the local environmental regulations.

SECTION VII: HANDLING AND STORAGE

HANDLING

This product and its vapours are highly flammable and toxic. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing mist, vapour or dust. Wash hands 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 should 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 empty containers. The use of this product in confined space area represents fire and health and safety risks.

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: Aerosol
ODOUR AND APPEARANCE: Black liquid with strong solvent odour
VAPOUR DENSITY (air = 1): Not available
EVAPORATION RATE (Butyl acetate = 1): Not available
BOILING POINT (760 mm Hg): Not available
FREEZING POINT: Not available
SPECIFIC GRAVITY (H_2O = 1): 0.952 kg/L
SOLUBILITY IN WATER (20°C): Insoluble
VOLATILE ORGANIC COMPOUND CONTENT (V.O.C): 33.5%
VISCOSITY: Not available

SECTION X: STABILITY AND REACTIVITY

STABILITY: This material is stable.
CONDITIONS OF REACTIVITY: Avoid excessive heat
INCOMPATIBILITY: Strong oxidizing and reducing agents, acids, bases, halogenated solvents.
HAZARDOUS DECOMPOSITION PRODUCTS: No evidence
HAZARDOUS POLYMERISATION: None

SECTION XI: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA

Toluene: (1)
LC_{50} (inhalation, rat): 7 350 ppm (4-hour exposure)
LD_{50} (oral, rat): 2 600-7 500 mg/kg
LD_{50} (dermal, rabbit): 12 225 mg/kg

Acetone: (1)
LC_{50} (male rat): 30 000 ppm (4-hour exposure)
LD_{50} (oral, female rat): 5 800 mg/kg
LD_{50} (dermal, rabbit): > 15 800 mg/kg

Isobutane: (1)
LC_{50} (inhalation, mouse): 520 000 (52%) (2-hour exposure)

Propane: (1) Not available

Asphalt: Not available

Effects of Short-Term (Acute) Exposure

INHALATION

Toluene: The major effect of toluene is on the CNS. Studies with rats have shown that up to approximately 1 000 ppm causes excitation and increased activity. At approximately 2 000 ppm, there is CNS depression with drowsiness, incoordination and unconsciousness. Death at higher concentrations is from respiratory failure. Animal studies have indicated that toluene is not directly toxic to the cardiovascular system. Recovery is rapid following cessation of exposure. Studies indicate no permanent damage to body systems. Studies in rats have shown hearing loss at high frequencies following toluene exposure both by inhalation (threshold concentration between 700 and 1 000 ppm) and orally (620 mg/kg/day for 4 weeks). This effect has also been observed in a mouse strain that had a genetic predisposition to hearing loss. (1)

Asphalt: No information available.

Acetone: Numerous studies have evaluated the effects of acetone on the CNS. The degree of CNS depression depends on both the concentration of acetone and the length of exposure. Drowsiness, incoordination, loss of reflexes, unconsciousness, respiratory failure and death have been observed. In general, acetone concentrations in excess of 8 000 ppm are required to produce symptoms, regardless of the exposure duration and species tested. (1)

Propane: Guinea-pigs breathing 5.5% (55 000 ppm) propane by volume developed tremors after 5 minutes. Nausea, retching and stupefaction were observed when animals were exposed for 30-120 minutes. All the animals survived a 2-hour exposure and had no significant tissue damage. A gas concentration of 89% did not cause anaesthesia, but depressed the blood pressure of cats. Inhalation of 10% propane by mice and 15% by dogs causes weak cardiac sensitization. Presumably, all of these effects are reversible when exposure ceases. In primates, 10% propane (100 000 ppm) caused some changes in heart function. At 20% there was aggravation of these symptoms and respiratory depression. (1)

Isobutane: Mice exposed to isobutane concentrations of 15% (150 000 ppm), 20% (200 000 ppm) and 23% (230 000) showed signs of anesthesia within 60, 17 and 26 minutes, respectively. Exposure to 10 to 20% (100 000 to 200 000 ppm) did not cause any circulatory effects, but did cause slight respiratory depression in monkeys. Isobutane is a weak cardiac sensitizer in dogs and rats (high concentrations can cause abnormal heartbeat in animals under stress). (1)

EYE IRRITATION

Toluene: Toluene is a mild eye irritant. (1)

Asphalt, Propane: There is no information available.

Acetone: Acetone is a severe irritant. (1)

Isobutane (rabbit): Isobutane may resulte in mild, temporary irritation. (1)

SKIN IRRITATION

Toluene: Toluene is a moderate skin irritant. (1)

Asphalt: No information available.

Acetone: Acetone is a non-irritant to very mild irritant. (1)

Propane: Several formulations containing less than 13% propane caused only mild irritation. (1)

Isobutane (rabbit): Isobutane may cause moderate and temporary irritation. (1)

INGESTION

Acetone: Oral exposure to large doses of acetone in drinking water for 14 days has produced mild toxicity in rats and mice. (1)

Effects of Long-Term (Chronic) Exposure

INHALATION

Toluene: Daily inhalation by rats of toluene concentrations below 400 ppm for up to 24 months resulted in no significant toxicity. Evidence for chronic CNS neurotoxicity is inconclusive. Numerous studies on rats and mice have shown reduced performance on some neurobehavioral tests but not others, both during and after toluene inhalation exposures (usually at greater than 500 ppm). (1)

Acetone: No significant harmful effects were observed in rats exposed by inhalation to 19 000 ppm (3 hours/day, 5 days/week) for 8 weeks. (1)

Propane and Isobutane: No toxicity or abnormalities were observed when monkeys were exposed to approximately 750 ppm for 90 days. Similar results were obtained in another study where monkeys were exposed to an aerosol spray containing 65% propane and isobutane. (1)

INGESTION

Toluene: No significant toxicity was seen after oral administration of up to 590 mg/kg to female rats for up to six months. (1)

Asphalt: There is no information available.
Acetone: Mild harmful effects were observed in rats and mice exposed to high oral doses for 13 weeks. (1)

Propane, Isobutane: Not applicable to gases.

SKIN SENSITIZATION
Acetone: Acetone is not a skin sensitizer. (1)

CARCINOGENICITY
Toluene: IARC has concluded there is inadequate evidence for the carcinogenicity of toluene in experimental animals. Toluene was not carcinogenic in mice and rats exposed by inhalation to up to 1 200 ppm for 24 months. (1)

Acetone: Acetone is not known to be a carcinogen. (1)

Asphalt, Propane, Isobutane: There is no information available.

TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY
Toluene: Toluene does cause developmental effects in animals, based on fetotoxicity (reduced foetal weight), behavioural effects (effects on learning and memory) and hearing loss (in males) observed in the offspring of rats exposed by inhalation to 1 200 or 1 800 ppm toluene. These effects were observed in the absence of maternal toxicity. (1)

Acetone: The information located is not sufficient to conclude that acetone causes developmental toxicity. Inhalation of acetone has caused fetotoxicity in rats and mice and embryotoxicity in mice, but only at concentrations that also caused maternal toxicity. (1)

Asphalt, Propane and Isobutane: No information available.

REPRODUCTIVE TOXICITY
Toluene: No adverse effects on reproduction were observed in several studies on both rats and mice, even at maternally toxic exposures. (1)

Acetone: The information located is not sufficient to conclude that acetone causes reproductive toxicity. Effects on sperm have been observed in rats exposed orally to a dose that caused significant other toxicity. No effects on fertility have been observed. (1)

Asphalt, Propane, Isobutane: There is no information available.

MUTAGENICITY
Toluene: There is insufficient information available to conclude that toluene is mutagenic. (1)

Acetone: Acetone is not known to be a mutagen. There are no confirmed studies that show mutagenicity in live animals. Negative results have been obtained in most studies with cultured mammalian cells and bacteria. (1)

Asphalt, Propane, Isobutane: No information available.

TOXICOLOGICAL SYNERGISMS
Acetone: Acetone has increased the liver and/or kidney toxicity of many chemicals including carbon tetrachloride, chloroform, trichloroethylene, bromodichloromethane, dibromochloromethane, N-nitrosodimethylamine and 1,1,2-trichloroethane. It also enhances the lung toxicity of styrene, the lethality of acetonitrile and the neurotoxicity 2,5-hexanedione in laboratory animals. (1)

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 2.1
IDENTIFICATION NUMBER: UN 1950
SHIPPING NAME: Aerosol
PACKING GROUP: None
CONTAINERS FOLLOW THE 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).
Prop. 65: This product contains chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION XVI: OTHER INFORMATION

GLOSSARY

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

References:

(1) CHEMINFO (2015) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada
(2) Safety Data Sheet of the supplier

Code of SDS: **CA U DRU SS FS 013**
For information: 1 800 567-1492

The Safety Data Sheets of SOPREMA Canada are available on Internet at the following site: **www.soprema.ca**

Justification of the update:
- GHS format.

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.