

Centre Anti-Poison pour le Québec: (800) 463-5060 Tél. (Qc): (418) 660-8666 / 800-890-8666 Fax. (Qc): (418) 660-8998

#### SAFETY DATA SHEET

## **SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier				Product Use		
SOLVENT (BROMINE NUMBER)				Laboratory use		
Chemical formula				Product code	Molar weight	
-			SB-8500			
Chemical name / Commercie INDICE DE BROME,						
Supplier's name			Address-Street			
Laboratoire MAT			610, Adanac Street			
City			Province	Province		
Québec			Québec			
Postal code	Internet		Phone number			
G1C 7B7 www.labmat.com		418-660-8666 / 800-890-8666				
Emergency phone CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		-463-5060		
Date SDS SDS Prepared by		E-Mail				
6/16/2020 Laboratoire MAT		Т	labmat@labmat.com			

## **SECTION 02 - HAZARDS IDENTIFICATION**

Classification WHIMS / GHS	Flammable liquids cate	gory 3
	Corrosive to metals-Co	ategory 1
	Serious eye damage/	eye irritation - Serious eye damage category 1
	Carcinogenicity catego	bry 2
	Specific Target Oraan	Toxicity - Single exposure category 1
		Toxicity - Repeated exposure category 2
	Acute toxicity - Derma	l category 4
	Acute toxicity - Inhalat	ion category 4
	Skin corrosion/irritatio	n - Skin corrosion category 1
Signal Word	DANGER	
Hazards statements (H)	H226 Flammable liqui	d and vapour.
	H290 May be corrosi	-
	H312 Harmful in conto	act with skin.
	H314 Causes severe s	ikin burns and eye damage.
	H318 Causes serious e	
	H332 Harmful if inhale	
	H351 Suspected of co	uusing cancer.
	H370 Causes damage	to organs
	-	age to organs through prolonged or repeated exposure.
Precautionary statements (P)	P201	Obtain special instructions before use.
, .,	P202	Do not handle until all safety precautions have been read and understood.
	P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
	P233	Keep container tightly closed.
	P234	Keep only in original container.
	P240	Ground/bond container and receiving equipment.
	P241	Use explosion-proof electrical/ventilating/lighting equipment.
	P242	Use only non-sparking tools.
	P243	Take precautionary measures against static discharge.
	P260	Do not breathe dust / fume / gas / mist / vapours / spray.
	P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
	P264	Wash the areas of the body that have been in contact with the product after
	0.70	handling.
	P270	Do no eat, drink or smoke when using this product.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
		IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
	P302 + P352 P303 + P361 + P353	IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
	P304 + P340	Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable
	P305 + P351 + P338	for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P311	IF exposed or concerned: Call a POISON CENTER or a doctor.
	P308 + P313	IF exposed or concerned: Get medical advice/attention.
	P310	Immediately call a POISON CENTER or doctor/physician.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P314	Get medical advice/attention if you feel unwell.
	P321	Specific treatment (see section 4 of the SDS and on this label).
	P362 + P364	Take off contaminated clothing and wash it before reuse.
	P363	Wash contaminated clothing before reuse.
	P370 + P378	In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon
	P390	dioxide for extinction.
	P390	Absorb spillage to prevent material damage.

	P403 + P235	Store in a well-ventilated place. Keep cool.
	P405	Store locked up.
	P406	Store in a corrosion resistant container / or a container with corrosion resistant liner.
	P501	Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
PICTOGRAMS		
Other dangers	١	<pre>\FPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)</pre>
	Health 3	
	Fire 2	
	Reactivity 1	
	Special danger	

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
acide acétique glacial Acide sulfurique	64-19-7 7664-93-9	71
chlorure de Méthylène	75-09-2	17
Méthanol	67-56-1	10
Eau distillée	7732-18-5	Balance

## SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and In case of medical consultation, keep this sheet available.	
Show this safety data sheet to the doctor in attendance.	

## **SECTION 05 - FIREFIGHTING MEASURES**

Flammability	Yes	
Ignition conditions	Flammable in the presence of a source of ignition when the temperature is above the flash point.	
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.	
Unsuitable extinguishing media	Do not use a heavy water stream.	
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions Carbon oxides, Sulphur oxides. Hydrogen chloride gas. Phosgene (carbonyl dichloride)	
	When concentrated, the product reacts according to the following characteristics: Moderate fire hazard the presence of heat or flame. The presence of oxygen in the air increases the rate of flammability. Reacts violently with lithium, potassium, potassium hydroxide, potassium tert-butoxide and sodium. May react violently with incompatible products (Ref Section 10).	
	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.	

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for	Evacuate personnel to safe areas. Cut off all sources of ignition. Absorb the product with sand or
containment and cleaning up /	vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose
Personnal precautions, protective	of residues in a container for disposal of hazardous materials. When handling, wear suitable safety
equipment	equipment. Use breathing apparatus if necessary. Avoid breathing vapours, mist or gas.

## SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Store in a well-ventilated area. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges. Protect from the sun's rays.
	Keep away from sources of ignition - No smoking. Avoid inhalation of vapour or mist. Always open containers slowly to allow any excess pressure to vent. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Acetic acid	64-19-7	TWA	10.000000 ppm 25.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	15.000000 ppm 37.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	10.000000 ppm	Canada. British Columbia OEL
		STEL	15.000000 ppm	Canada. British Columbia OEL
		TWAEV	10.000000 ppm 25.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	15.000000 ppm 37.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	10 ppm 25 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	15 ppm 37 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	10 ppm	Canada. British Columbia OEL
		STEL	15 ppm	Canada. British Columbia OEL
		TWAEV	10 ppm 25 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	15 ppm 37 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)

Components	CAS-No.	Control parameters	Value	Basis
Methylene chloride	75-09-2	TWA	25 ppm	Canada. British Columbia OEL
Remarques	IARC "2B" applies to	substances which are considered	I to be possibly carcinogenic in hum	ans.
		TWA	25.000000 ppm	Canada. British Columbia OEL
	IARC "2B" applies to	substances which are considered	I to be possibly carcinogenic in hum	ans
		TWAEV	50.000000 ppm 175.000000 mg/m3	Canada. Ontario OELs
		TWA	50 ppm 174 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	50.000000 ppm 174.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	50.00000 ppm 174.000000	Québec. Regulation

A substance the surround of u		mg/m3	respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
effect in humans	nich must be minimized in accord	ance with section 42. A suspected	a carcinogenic
	TWAEV	50 ppm 174 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
A substance the exposure of wheeling of the effect in humans	hich must be minimized in accord	ance with section 42. A suspected	d carcinogenic

Components	CAS-No.	Value	Control parameters	Basis		
Methanol	67-56-1	TWA	200.000000 ppm 262.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)		
Remarks	Substance may be re	adily absorbed through intact	skin			
		STEL	250.00000 ppm 328.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)		
	Substance may be re	adily absorbed through intact	skin			
		TWA	200.000000 ppm	Canada. British Columbia OEL		
	Contributes significantly to the overall exposure by the skin route.					
		STEL	250.000000 ppm	Canada. British Columbia OEL		
	Contributes significantly to the overall exposure by the skin route.					
		TWAEV	200.00000 ppm 262.00000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants		
	Skin (percutaneous)					
		STEV	250.00000	Québec.		

		ppm 328.000000 mg/m3	Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
 Skin (percutaneous)			
	TWA	200.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	STEL	250.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Components	CAS-No.	Value	Control parameters	Basis
Sulfuric acid	7664-93-9	TWA	0.2 mg/m3	Canada. British Columbia OEL
Remarks	IARC '1' applies to su	o those substances that are con bstances categorized as carcin carcinogenicity in humans.	sidered suspected human carcinog ogenic to humans, and used when t	ens. here is
		TWAEV	0.2 mg/m3	Canada. Ontario OELs
		STEV	3 mg/m3	Canada. Ontario OELs
		STEL	3 mg/m3	Canada. Alberta, Occupationa Health and Safety Code (table 2: OEL)
		TWA	1 mg/m3	Canada. Alberta, Occupationa Health and Safety Code (table 2: OEL)
		TWA	1 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEL	3 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible

			exposure values for airborne contaminants
	TWA	-,	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Fan.
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

# SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Liquide incolore.
Odour	Odeur forte et irritante.
Odour threshold	Data not available
рН	<2.5.
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	Yes
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Donnée non-disponible.
Vapour density	Data not available
Relative density	0.995g/ml
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

## SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions. Unstable if heated. If heated strongly, it emits toxic fumes.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid contact with incompatible materials and extreme temperatures. Heat, flames, sparks. Avoid excessive heat and humidity. Exposure to light.
Incompatible material	When pure, the products react with the following products: Strong oxidizing agents (chromic acid, nitric acid, peroxides, chlorates and perchlorates), bases, alcohols, carbonates, hydroxides, oxides, phosphates, 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, phosphorus trichloride, heat and moisture. Alkali metals, aluminum, amines, magnesium, vinyl compounds. Acids, Oxidants, Acid Chlorides, Acid Anhydrides, Alkali Metals, Reducing Agents. Water, metals, alcohols, reducing agents, bases, organic and combustible materials, azides, bromates, carbides, chlorates, chromates, cyanides, ferrocyanides, fulminates, glycerides, halides, nitrates, nitrites, permanganates, perchlorates, picrates, sulphides, hydrogen peroxide, nitromethane, phosphorus, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides. Toxic vapors of hydrogen chloride, carbon monoxide, dioxide and carbon oxychloride (phosgene) Sulphur oxides.

## SECTION 11 - TOXICOLOGICAL INFORMATION

#### SULFURIC ACID

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe burns and corrosion of ocular tissue that may lead to corneal ulceration and blindness.
- Skin	Severe burns and tissue ulcerations. May be fatal, if the extent of the burns is considerable.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
Acute toxicity (Ingestion)	Corrosion and ulceration of the mouth, throat, esophagus, stomach and abdominal wall. Dysphagia, kidney damage, abdominal pain, cramps, diarrhea, melena, hematemesis, anuria, possible perforation of the esophagus and stomach, convulsions, salivation, stupor, circulatory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis and dyschromia, conjunctivitis, lung and eye damage, chest pain, digestive disorders, tooth abrasion, cough, dyspnea, laryngitis, emphysema, tracheobronchitis, headache, dizziness, fever, salivation tremors, paleness, muscle weakness, weight loss and loss of appetite, seizures, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 2,140 mg/kg LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Mouse - 4h - 850 mg/m3

#### ACETIC ACID, GLACIAL

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Severe burns and tissue ulcerations. May be fatal, if the extent of the burns is considerable.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
Acute toxicity (Ingestion)	Corrosion and ulceration of the mouth, throat, esophagus, stomach and abdominal wall. Dysphagia, kidney damage, bloody diarrhea and vomiting, diaphoresis, intense thirst, shock, circulatory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, conjunctivitis, hyperkeratosis, nervous disorders, chest pain, dental erosion, cough, dyspnea, laryngitis, headache, dizziness, diarrhea, asthenia, irritability, weight loss and loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3,530 mg/kg. LD50 Dermal - Rabbit - 1060 mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat -4h - 11.4 mg/L (4400 ppm - 4 h) LC50 Inhalation - Mouse- 1hre - 5620 ppm

#### **METHYLENE CHLORIDE**

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and may cause inflammation of the conjunctiva.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, chest pain, cough, dyspnea, headache, dizziness, drowsiness, nausea and vomiting, paresthesia, nystagmus, cardiac arrhythmias, carboxyhemoglobinemia and may lead to pulmonary edema.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Gastrointestinal disorders, liver and kidney damage, cramps, diarrhea, headache, dizziness, drowsiness, nausea and vomiting, paresthesia, nystagmus, cardiac arrhythmias, stupor, convulsions, carboxyhemoglobinemia, unconsciousness, coma and may result in death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, narcotic effects, liver and kidney damage, cough, dyspnoea, laryngitis, headache, dizziness, drowsiness, confusion, irritability, paresthesia, nystagmus, carboxyhemoglobinemia, insomnia, weight loss and loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 2000 mg/kg LD50 Dermal - Rabbit - 2000 mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 52 000 mg/m3 6 hres.

#### METHANOL

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	May cause eye irritation.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, chest pain, cough, dyspnea, headache, dizziness, watery eyes, paresthesia, nystagmus, drowsiness, confusion, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Narcotic effects, liver, kidney and eye damage, abdominal pain, cramps, diarrhea, headache, dizziness, paresthesia, nystagmus, drowsiness, incoordination, acidosis, nausea and vomiting, seizures, hypotension, respiratory collapse, loss of consciousness, coma and can lead to death. Acute absorption of methanol can cause blindness. Damage to: liver, kidneys, eyes, heart, central nervous system.
Chronic exposure effects / symptoms	Headache, dizziness, nausea, visual disturbances, decreased visual acuity, liver and kidney damage.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 1187 mg/kg LD50 Dermal - Lapin-15840 mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat: 64000 ppm/4 h. LC50 Inhalation - Rat 115.9-130.7mg/L air / 4h.

#### SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral: 2586 mg/kg - Rat LD50 Dermal: 1315 mg/kg - Undefined species LC50 Inhalation: 13.6 mg/L - 4h - Undefined species

## SECTION 12 - ECOLOGICAL INFORMATION

## **SECTION 13 - DISPOSAL CONSIDERATIONS**

•	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

### **SECTION 14 - TRANSPORT INFORMATION**

UN Number	2920
UN Proper shipping name	LIQUIDE CORROSIF, INFLAMMABLE, N.S.A (acide acétique glacial, méthanol)
Transport hazard class(es)	8 Corrosive substances 3 Flammable liquids
Packing group	И
Limited quantity index	1L
ERAP Index	-
Special precautions	16

## **SECTION 15 - REGULATORY INFORMATION**

WHIMS CANADA	Flammable liquids category 3
	Corrosive to metals-Category 1
	Serious eye damage/eye irritation - Serious eye damage category 1
	Carcinogenicity category 2
	Specific Target Organ Toxicity - Single exposure category 1
	Specific Target Organ Toxicity - Repeated exposure category 2
	Acute toxicity - Dermal category 4
	Acute toxicity - Inhalation category 4
	Skin corrosion/irritation - Skin corrosion category 1

### **SECTION 16 - OTHER INFORMATION**

#### **Further information**

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 6/16/2020