





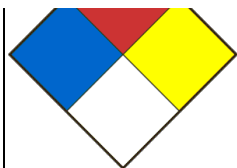
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier AZF SOLUTION		Product Use Laboratory use	
Chemical formula		Product code AS-7761	Molar weight
Chemical name / Commercial name / Synonymous SOLUTION AZF; AZF Fixative; AZF Fixative (Acetic Zinc Formalin)			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 Lun-Ven 8h-16h	
Emergency phone	418-660-8666 Lun-Ven 8h-16h		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 7/29/2024	SDS Prepared by Laboratoire MAT		E-Mail labmat@labmat.com

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	<p>Serious eye damage/eye irritation - Serious eye damage category 1</p> <p>Carcinogenicity category 1A</p> <p>Specific Target Organ Toxicity - Single exposure category 1</p> <p>Specific Target Organ Toxicity - Repeated exposure category 1</p> <p>Respiratory or skin sensitization - Skin sensitize category 1</p> <p>Germ cell mutagenicity category 2</p> <p>Acute toxicity - Inhalation category 4</p> <p>Skin corrosion/irritation - Skin corrosion category 1</p>
Signal Word	<p>DANGER</p>
Hazards statements (H)	<p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H341 Suspected of causing genetic defects .</p> <p>H350 May cause cancer.</p> <p>H370 Causes damage to organs.</p> <p>H372 Causes damage to organs through prolonged or repeated exposure.</p> <p>H332 Harmful if inhaled.</p> <p>H314 Causes severe skin burns and eye damage.</p>
Precautionary statements (P)	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P260 Do not breathe mists, gases, vapors and other fumes, or the product itself.</p> <p>P261 Avoid breathing mists, gases, vapors and other fumes, or the product itself.</p> <p>P264 Wash the areas of the body that have been in contact with the product after handling.</p> <p>P270 Do no eat, drink or smoke when using this product.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves, protective clothing and eye and face protection.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308 + P311 IF exposed or concerned: Call a POISON CENTER or a doctor.</p> <p>P308 + P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P310 Immediately call a POISON CENTER or a doctor.</p> <p>P314 Get medical advice/attention if you feel unwell.</p> <p>P321 Specific treatment (see section 4 of the SDS and on this label).</p> <p>P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.</p> <p>P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</p> <p>P363 Wash contaminated clothing before reuse.</p>
PICTOGRAMS	
Other dangers	<p>NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)</p>
	<p>Health 2</p> <p>Fire 0</p>



Reactivity 0
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%P/P)
Formaldéhyde	50-00-0	6
Méthanol	67-56-1	2
Chlore de zinc	7646-85-7	1
Acide acétique	64-19-7	1

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	If breathed in, move person into fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Skin sensitizer. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides. - Zinc/zinc oxides. Hydrogen chloride gas.
Specific hazards of the dangerous product	May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	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 containment and cleaning up / Personal precautions, protective equipment	Evacuate personnel to safe areas. Cut off all sources of ignition. Ensure a good ventilation of the premises. When handling, wear appropriate safety equipment. Use a respirator as needed. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Protect from the sun's rays. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks).
Methods of handling	Avoid contact with the skin, eyes and clothes. Avoid inhalation of vapor or mist. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Component	CAS-No.	Control parameters	Value	Basis
Formaldéhyde	50-00-0	(c)	1.000000 ppm 1.300000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarques	cancérogène classe A1 pour l'homme			
		TWA	0.750000 ppm 0.900000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	cancérogène classe A1 pour l'homme			
		TWA	0.300000 ppm	Canada. British Columbia OEL
	cancérogène classe A1 pour l'homme			
		C	1.000000 ppm	Canada. British Columbia OEL
	cancérogène classe A1 pour l'homme			
		P	2.000000 ppm 3.000000 mg/m3	Quebec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Cancérogène classe A1 pour l'homme. Une substance dont la recirculation est prohibée conformément à l'article 108.			
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 readily absorbed through intact skin			
	STEL 250.000000 ppm 328.000000 mg/m3 Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)			
	Substance may be readily 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	200.000000 ppm 262.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		STEV	250.000000 ppm 328.000000 mg/m3	Québec. 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)

Component	No.-CAS	Control parameters	Value	Basis
Acetic acid	64-19-7	TWA	10ppm	Canada. Ontario OELs
		STEL	15ppm	Canada. Ontario OELs
		TWA	10 ppm 25 mg/m3	Canada. Alberta,

				Occupational Health and Safety Code (table 2: OEL)
		STEL	15 ppm 37 mg/m ³	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/m ³	Quebec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	15 ppm 37 mg/m ³	Quebec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)

Composants	No.-CAS	Valeur	Paramètres de contrôle	Base
Zinc chloride	7646-85-7	TWA	1.000000 mg/m ³	Canada. LEP Colombie Britannique
		STEL	2.000000 mg/m ³	Canada. LEP Colombie Britannique
		TWA	1.000000 mg/m ³	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
Remarques	La limite d'exposition professionnelle est basée sur les effets de l'irritation et son ajustement pour compenser les emplois du temps de travail inhabituels n'est pas nécessaire			
		STEL	2.000000 mg/m ³	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
	La limite d'exposition professionnelle est basée sur les effets de l'irritation et son ajustement pour compenser les emplois du temps de travail inhabituels n'est pas nécessaire			
		TWA	1.000000 mg/m ³	Canada. LEP Colombie Britannique

		STEL	2.000000 mg/m3	Canada. LEP Colombie Britannique
		VEMP	1.000000 mg/m3	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air
		TWA	1.000000 mg/m3	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
La limite d'exposition professionnelle est basée sur les effets de l'irritation et son ajustement pour compenser les emplois du temps de travail inhabituels n'est pas nécessaire				
		STEL	2.000000 mg/m3	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
La limite d'exposition professionnelle est basée sur les effets de l'irritation et son ajustement pour compenser les emplois du temps de travail inhabituels n'est pas nécessaire				
		VEMP	1.000000 mg/m3	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Fan.
Respiratory	If permitted levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.
Gloves	Handle with gloves. Suggested material: Nitrile. Neoprene. Butyle. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.
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	Donnée non disponible.
Odour threshold	Data not available
pH	Donnée non disponible.
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	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Miscible avec l'eau, l'alcool et l'acétone.
Vapour density	Data not available
Relative density	Data not available
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	Acid product, reacts strongly with strong bases. May react violently with incompatible substances.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapors may form explosive mixture with air.
Conditions to avoid, including static discharge, shock or vibration	Avoid contact with incompatible materials and extreme temperatures. Heat, flames, sparks. In contact with air, formaldehyde oxidizes to formic acid which is unstabilized and causes polymerization (deposition).
Incompatible materials	When pure, the products react with the following products: Acids, Oxidants, Acid Chlorides, Acid Anhydrides, Alkali Metals, Reducing Agents. Strong bases. Isocyanates. Nitriles. Amines. Aniline. Phenol. 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.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of carbon monoxide and carbon dioxide. Paraformaldehyde. Hydrogen chloride gas. - Zinc/zinc oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

FORMALDEHYDE 37%

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burns that may cause permanent eye damage.
- Skin	Irritation and dermatitis. Prolonged skin contact may result in an allergic reaction characterized mainly by erythematous or eczematous lesions.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Pains in the chest, respiratory allergies, cough, dyspnea, headache, dizziness, watery eyes, congestion, bronchial spasms and may lead to pulmonary edema.
Acute toxicity (Ingestion)	Irritation and burning of the esophagus and stomach. Abdominal pain, cramps, diarrhea, nausea and vomiting, hematemesis, acidosis, hematuria, anuria, vertigo, pallor, blindness, convulsions, stupor, respiratory collapse, coma and can lead to death.
Chronic exposure effects / symptoms	Is recognized as a carcinogen (class 1) by IARC. Burning sensation, dermatitis, conjunctivitis, chest pain, eye and lung damage, respiratory and skin allergies, cough, dyspnoea, bronchitis, dry throat, headache, dizziness, confusion, irritability, tearing, choking, sleep, intense thirst, sweating, salivation, fatigue, paleness, muscle weakness, weight loss and loss of appetite, convulsions, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 460 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 463 ppm.

ZINC CHLORIDE

Routes of exposure	Inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burns that may cause permanent eye damage.
- Skin	May be harmful if absorbed through skin. Severe irritation and dermatitis. Intense dust exposure can lead to boils (furunculosis).
- Inhalation	May be harmful if inhaled. The product is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, fever, seizures, respiratory acidosis, bronchopneumonia, and pulmonary edema that may result in death.
Acute toxicity (Ingestion)	Toxic if swallowed. Irritation of the mucous membranes. Burns in the mouth and throat, dysphagia, abdominal pain and leg cramps, diarrhea, headache, dizziness, cold sweat, hematuria, convulsions, hypotension, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, furunculosis, conjunctivitis, nervous disorders, lung damage, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, confusion, irritability, tachyphemia, sweating, salivation, fatigue, fever, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 1100 mg/kg. LD50 Oral - Mouse - 1260 mg/kg. LD50 Dermal - Rat - 2000 mg/kg.
CL50 (specify species and route of entry)	LC50 - Inhalation - Rat - 1.975 mg/L air - 10 min.

ACETIC ACID, GLACIAL

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below. The corrosive effect will outweigh the toxicity for the concentrated product.
- 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. Acetic acid will have a greater corrosive effect from 10%.
- 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

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 - Rabbit - 17,100 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: > 5000 mg/kg - Rat LD50 Dermal: > 5000 mg/kg - Undefined species LC50 Inhalation: 7524 ppm - 4h - Rat

SECTION 12 - ECOLOGICAL INFORMATION

Available ecological information	No
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SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Serious eye damage/eye irritation - Serious eye damage category 1 Carcinogenicity category 1A Specific Target Organ Toxicity - Single exposure category 1 Specific Target Organ Toxicity - Repeated exposure category 1 Respiratory or skin sensitization - Skin sensitize category 1 Germ cell mutagenicity category 2 Acute toxicity - Inhalation category 4 Skin corrosion/irritation - Skin corrosion category 1
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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: 7/29/2024