

SAFETY DATA SHEET

This Safety Data Sheet complies with the Canadian Hazardous Products Regulations, the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910 (OSHA HCS), and the European Union Directives.

1 Product and Supplier Identification

1.1 Product: Affixit

1.2 Product Use: Bonding Agent

1.3 Producer: Haigh Industries Inc.

#5-8118 North Fraser Way Burnaby BC Canada

V5J 0E5

Telephone: (604) 278-5851

1.4 Supplier: As above

1.5 Emergencies (24-hour number): +1(604) 278-5851

2 Hazards Identification

2.1 Classification of product or mixture

Note to reader: This product in an untested mixture and GHS classification is based on the classification of the ingredients and their concentrations. Proprietary ingredients do NOT exhibit any health effects not listed in this SDS.

GHS Classification: Skin Irritation: Category 2

Eye Irritation: Category 2A Skin Sensitization: Category 1 Flammable Liquids: Category 2

Specific Target Organ Toxicity - Single Exposure: Category 3

GHS Label Elements

Pictogram:



Signal Word: Warning

GHS Hazard Statements:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic reaction.

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

H402 Harmful to aquatic life.

GHS Precautionary Statements:

Prevention:

P210 Keep away from heat, hot surface, sparks, open flames and other ignition

sources. No Smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof equipment. P242 Use only non-sparking tools.

Take precautionary measures against static discharge. P243 P261 Avoid breathing dust/fume/gas/mist/vapours/spray P264+265 Wash skin thoroughly after handling. Do not touch eyes.

P271 Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace. P272

P273 Avoid release into environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water [or shower]

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see Section 4). P319 Get medical help if you feel unwell.

P332+P317 IF SKIN irritation occurs: Gel emergency medical help. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get emergency medical help.

P337+P317

P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to

extinguish.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/containers to an approved waste disposal plant.

2.2 Hazards not otherwise classified (HNOC) or not covered by GHS: Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Repeated exposure may cause skin dryness or cracking.

2.3 Additional Information

Primary Routes of Entry:

Skin Contact: Yes Skin Absorption: Yes Eve Contact: Yes Ingestion: No Inhalation: Yes

Emergency Overview: This product contains ingredients which may cause mild eye and skin irritation in some people. For eye contact, symptoms may include a moderate burning sensation, tearing, redness, or swelling. Contact with skin may cause an allergic reaction due to prior sensitization. Local redness, rash, or itchy skin may occur in those persons with a pre-existing sensitivity or those predisposed to skin problems. In rare cases an allergic skin reaction may occur after long term contact with this product.

Effects of Short Term (Acute) Exposure:

Inhalation: This product is a mild respiratory irritant. Vapours may cause drowsiness and dizziness.

Skin Contact: It is expected that absorption through the skin will contribute to overall exposure. Contact with skin may cause an immediate allergic reaction in persons who may be sensitized by previous exposures. Symptoms may include an immediate rash, local redness, or itching of the skin.

Eye Contact: This product is an eye irritant. Exposure to the eye may cause symptoms which include a burning sensation, tearing, redness and swelling.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Effects of Long-Term (Chronic) Exposure: This product contains ingredients which have been known to cause skin sensitization in some people. Sensitization may occur after prolonged or repeated exposures to this product. Prolonged contact with skin may defat tissue causing dermatitis or aggravate existing skin problems.

Medical Conditions Aggravated by Exposure: Persons susceptible to skin problems may find that the use of this product will cause increased symptoms of existing skin problems.

3 Composition

3.1 Mixture Composition

Component	CAS No.	EINECS No.	% (w/w)	GHS Classification
Ethyl Acetate	141-78-8	205-500-4	70-80	Eye Irritation (Category 2A): H319
				Flammable Liquids (Category 2): H225
				STOT – SE (Category 3) H336
Isopropylidenediphenyl	1565-94-2	216-367-7	10-30	Skin Irritant (Category 2): H315
Bisoxyhydroxypropyl Methacrylate				Skin Sensitizer (Category 1): H317
				Eye Irritation (Category 2A): H319
HEMA (2-Hydroxyethyl Methacrylate)	868-77-9	212-782-2	3-7	Skin Irritant (Category 2): H315
				Skin Sensitizer (Category 1): H317
				Eye Irritation (Category 2B): H320
				Acute Aquatic Toxicity (Category 3): H402
P-Hydroxyanisole (4- Methoxyphenol)	150-76-5	205-769-8	< 0.01	Acute Toxicity Oral (Category 4): H302
				Eye Irritant (Category 2A): H319
				Acute Aquatic Toxicity (Category 3): H402
				Chronic Aquatic Toxicity (Category 3): H412

4 First Aid Measures

4.1 Description of First Aid Measures

In Case of Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 to 30 minutes or until the chemical is removed, while holding the eyelid(s) open. Remove contact lenses if present and easy to do so. Seek medical advice.

In Case of Skin Contact: Remove contaminated clothing and shoes. Rinse skin with water/shower.

If Inhalation: Remove source of contamination or move victim to fresh air. Consult a physician.

If Ingestion: Do NOT induce vomiting. Rinse out mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on left side with head down to prevent aspiration of liquid into lungs. If swallowed, seek medical advice immediately.

4.2 Most Important Symptoms and Effects Acute and Delayed

Effects of Short-Term (Acute) Exposure:

Inhalation: Vapours may cause drowsiness and dizziness. Mild respiratory irritant.

Skin Contact: It is expected that absorption through the skin will contribute to overall exposure. Contact with skin may cause an immediate allergic reaction in persons who may be sensitized by previous exposures. Symptoms may include an immediate rash, local redness, or itching of the skin.

Eye Contact: This product is an eye irritant. Exposure to the eye may cause symptoms which include a burning sensation, tearing, redness and swelling.

Ingestion: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Effects of Long-Term (Chronic) Exposure: This product contains ingredients which have been known to cause skin sensitization in some people. Sensitization may occur after prolonged or repeated exposures to this product. Prolonged contact with skin may defat tissue causing dermatitis or aggravate existing skin problems.

Medical Conditions Aggravated by Exposure: Persons susceptible to skin problems may find that the use of this product will cause increased symptoms of existing skin problems.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

In the event of an allergic reaction, immediate medical help is required. Allergic reactions may result in various health effects including respiration.

5 Fire Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: Carbon dioxide (CO2), dry chemical, alcohol resistant foam, water fog Unsuitable extinguishing media: Do not use a solid water stream as it may spread the fire.

5.2 Special Hazards Arising from Mixture

Highly flammable. May be ignited by open flame. Vapours are heavier than air ans may spread along floors. The product is insoluble and floats on water. May polymerize when heated or on contact with incompatible materials. Fire or intense heat may cause violent rupture of packages. The pressure in sealed containers can increase under the influence of heat. Thermal decomposition may produce irritating/toxic fumes/gases.

5.3 Advice for Firefighters

Do not enter fire area without proper protection. Fight fire from a safe distance, upwind. Wear self-contained breathing apparatus and protective suit.

5.4 Further Information

Remove container from danger zone and cool with water. Prevent extinguishing water from contaminating surface water or the ground water system.

Sensitivity to Impact: No

Sensitivity to Static Discharge: Yes

6 Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Wear suitable protective equipment. Ventilate area. Extinguish any sources of ignition. Avoid breathing mist, vapour, dust, fumes, and spray. Keep people away from and upwind of spill/leak.

6.2 Environmental Precautions

Ensure that any release of this material is contained to prevent leakage into waterways and sanitary sewers.

6.3 Methods and Materials for Containment and Cleanup

Remedial Measures: Ventilate the area. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools. Clean with detergents. Avoid solvents. Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Contact proper local authorities.

Large Spills: For large spills, dike area and prevent leakage into waterways or sanitary sewers. Recover using spark proof equipment and store in approved vented containers for re-use or disposal.

Small Spills: Small spills may be absorbed on an inert medium such as vermiculite or clay, then sweep into vented disposal containers.

6.4 Reference to Other Sections

For disposal, see section 13.

7 Handling and Storage

7.1 Precautions for Safe Handling

Handling Procedures: Wear proper protective equipment when handling this material. Only use non-sparking tools when handling this material. Persons with recurrent skin eczema or sensitization problems should be excluded from working with this product. Once a person is sensitized, no further exposure to the material that caused the sensitization should be permitted. Use only in a well-ventilated area. Avoid breathing vapours. Avoid contact with skin, eyes, and clothing. Keep away from incompatibles. Keep away from heat, sparks, and open flame. No smoking. Keep containers closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Wash thoroughly after handling.

7.2 Conditions for Safe Storage

Store in a cool/well-ventilated place. Inspect periodically for damage or leaks. Protect from sunlight. Store away from heat. Recommended storage temperature: 1-30°C.

7.3 Specific End Use(s)

No other uses except those mentioned in Section 1.2.

8 Exposure Controls and Personal Protection

8.1 Control Parameters

Components with Workplace Control Parameters:

Component	Exposure Limits	Basis	Notes
Ethyl Acetate CAS No. 14178-8	400 ppm (1440 mg/m³) (TWA)	Canada, Alberta (OEL)	None
EINECS No. 205-500-4	150 ppm (TWA)	Canada British Columbia (OEL)	None
	400 ppm (1440 mg/m³) (TWAEV)	Quebec (Regulation respecting health and safety) Schedule 1	None
		Part 1: Permissible exposure values for	

	airborne contaminates	
400 ppm (TWA)	USA (TLV)	None
400 ppm (1400 mg/m ³) (TWA)	France (OEL)	None
400 ppm (1500 mg/m ³) (TWA)	Germany (OEL)	Exposure factor 2
400 ppm (1400 mg/m ³) (TWA)	Greece (OEL)	None
200 mg/m ³ (TWA)	Poland (OEL)	None
600 mg/m³ (STEL)		
400 ppm (1460 mg/m ³) (TWA)	Spain (OEL)	None

8.2 Exposure Controls

Engineering Controls: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practical this should be achieved using local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory Protection: Vapours will be generated particularly if product is atomized, or heated. If used or sprayed in an enclosed area, at a minimum use a NIOSH approved organic vapour respirator. When cartridge type respirators are used, ensure that the cartridges are changed frequently according to the manufacturer's recommendations. Respirator selection must be done by a qualified person and be based upon a risk assessment of the work activities and exposure levels. Respirators must be fit tested and users must be clean shaven where the respirator seals to face. Exposure must be kept at or below the applicable exposure limits and the maximum use concentration of the respirator must not be exceeded.

Skin Protection: Depending upon the conditions of use, protective gloves and clothing to prevent skin contact. Wear sufficient clothing to prevent skin contact.

Eye and Face Protection: Chemical splash goggles and/or face shield must be worn when a possibility exists for eye contact due to splashing or spraying liquid. Contact lenses should not be worn.

Footwear: No specific recommendation.

Other: Emergency eyes wash fountains should be available in vicinity of use.

Control of Environmental Exposure: Prevent further leakage or spillage, if safe to do so. Do not let product enter drains.

9 Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance: Clear liquid
Odour: Ester-like odour
Odour Threshold: Not available
pH: Not applicable

Melting Point/Freezing Point: -83°C (based on ingredients)
Initial Boiling Point: 77°C (based on ingredients)

Flash Point: 3.3°C Evaporation Rate: 6.2

Upper Flammable Limit:11.5% (based on ingredients)Lower Flammable Limit:2.0% (based on ingredients)

Vapour Pressure: 9.73 kPa @ 20°C (based on ingredients)

Vapour Density: >1.0

Relative Density: 0.94 @ 25°C (water=1)

Solubility: Negligible in water

Partition Coefficient: Log P(oct) = 0.66

Autoignition Temperature: 427°C (based on ingredients)

Decomposition Temperature: No data

Viscosity: No data

Explosive Properties: Not explosive. May be sensitive to static discharge.

Oxidizing Properties: No data

9.2 Other Safety Information

None

10 Stability and Reactivity

10.1 Reactivity

Product may become reactive if inhibitor is depleted.

10.2 Chemical Stability

Stable as supplied.

10.3 Possibility of Hazardous Reactions

High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may initiate spontaneous polymerization, generating heat and pressure. Closed containers may rupture during hazardous polymerization.

Exothermic reaction with:

Fluorine

Chlorosulfonic Acid

Strong Oxidizing Agents

Fuming Sulfuric Acid

Risk of explosion with:

Lithium Aluminium Hydride

Alkali Metals

Hydrides

Alkaline Earth Metals

Violent reactions possible with:

Strong Acids and Strong Bases

10.4 Conditions to Avoid

Exposure to heat, light and moisture. Do not use in areas without adequate ventilation.

10.5 Incompatible Materials

Strong oxidizing agents, strong reducing agents, free radical initiators, inert gases, oxygen scavengers, peroxides, amines, sulfur compounds, heavy metal ions, alkalis and various plastics.

10.6 Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and various oxides of nitrogen.

11 Toxicological Information

11.1 Information on Toxicological Effects

Note to reader: We do not test our products on animals. In compliance with current SDS preparation requirements, the values listed are published values for generic ingredients with known animal toxicity.

Acute Toxicity

Component	LD ₅₀	LC ₅₀
Ethyl Acetate	5620 mg/kg (oral/rat)	N/av
CAS No. 14178-8	>20000 mg/kg (dermal/rabbit)	

EINECS No. 205-500-4		
Isopropylidenediphenyl Bisoxyhydroxypropyl Methacrylate	N/av	N/av
CAS No. 1565-94-2		
EINECS No. 216-367-7		
HEMA (2-Hydroxyethyl Methacrylate)	>5000 mg/kg (oral/rat)	N/av
CAS No. 868-77-9	>5000 mg/kg (dermal/rabbit)	
EINECS No. 212-782-2		

Abbreviation Key: N/p: not published, N/d: not determined, N/ap: not applicable, N/av: not available.

11.2 Skin Corrosion/Irritation

Components of this mixture may cause skin irritation, H315, Category 2, Warning

11.3 Serious Eye Damage/Eye Irritation

Components of this mixture may cause eye irritation, H319, Category 2A, Warning

11.4 Respiratory or Skin Sensitization

Components of this mixture may cause skin sensitization, H317, Category 1, Warning

11.5 Germ Cell Mutagenicity

No information available.

11.6 Carcinogenicity

Not classifiable as a human carcinogen.

11.7 Reproductive Toxicology

No information available.

11.8 Specific Target Organ Toxicity – Single Exposure

Components of this mixture may cause drowsiness or dizziness, H336, Category 3, Warning

11.9 Specific Target Organ Toxicity – Repeated Exposure

No information available.

11.10 Aspiration Hazard

No information available.

11.11 Additional Information

None

12 Ecological Information

12.1 Toxicity

To Fish:

Ethyl Acetate	LC ₅₀	96H	230mg/L (Fathead Minnow)
Isopropylidenediphenyl Bisoxyhydroxypropyl Methacrylate	No da	ıta avai	lable
2-Hydroxyethyl Methacrylate	LC ₅₀	96H	>100 mg/L
4-Methoxyphenol	LC ₅₀	96H	28.5 mg/L (Rainbow trout)

To Algae:

Ethyl Acetate	NOEC	72H	>100 mg/L (Green Algae)
Isopropylidenediphenyl Bisoxyhydroxypropyl Methacrylate	No data	a availa	ble
2-Hydroxyethyl Methacrylate	EC ₅₀	72H	836 mg/L
4-Methoxyphenol	No data	a availa	ble

To Daphina:

Ethyl Acetate	No data available	
Isopropylidenediphenyl Bisoxyhydroxypropyl Methacrylate	No data available	

2-Hydroxyethyl Methacrylate	EC ₅₀ 18H 380 mg/L
4-Methoxyphenol	No data available

12.2 Persistence and Degradability

2-Hydroxyethyl Methacrylate photodegrades rapidly when exposed to air.

No data on other components.

12.3 Bio accumulative Potential

2-Hydroxyethyl Methacrylate and ethyl acetate are considered readily biodegradable. Not data on other components.

12.4 Mobility in Soil

No data available

12.5 Results of PBT and vPvB Assessment

Not conducted

12.6 Other Adverse Effects

No data available

13 Disposal Considerations

13.1 Waste Treatment Methods

Product: Review federal, provincial or state, and local government requirements prior to disposal. Store material for disposal as indicated in Storage Conditions. Disposal by controlled incineration or by secure land fill may be acceptable.

Contaminated Packaging: Dispose as above.

14 Transport Information

Transport of Dangerous Goods (TDG and CLR):

UN Number	UN1993
UN Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (Ethyl Acetate)
UN Transport Hazard Class(es)	3
Packing Group	II
Labels	3

International Air Transport Association (IATA):

UN Number	UN1993
UN Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (Ethyl Acetate)
UN Transport Hazard Class(es)	3
Packing Group	II
Labels	3
Additional Information	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.

International Maritime Organization (IMO):

UN Number	UN1993
UN Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (Ethyl Acetate)
UN Transport Hazard Class(es)	3
Packing Group	II
Labels	3

A delition of Information	May be objected as LIMITED OUANITITY when
Additional Information	May be shipped as LIMITED QUANTITY when
	transported in containers no larger than 1.0 Litre, in
	packages not exceeding 30 kg gross mass.

15 Regulatory Information

15.1 CANADIAN FEDERAL REGULATIONS

CEPA, DOMESTIC SUBSTANCES LIST: Listed

15.2 UNITED STATES FEDERAL REGULATIONS

TOXIC SUBSTANCES CONTROL ACT (TSCA): All components are listed in the inventory.

California Proposition 65: No ingredients listed.

OSHA (29 CFR 1910 Subpart Z): Meets criteria for a hazardous substance.

CERCLA (40 CFR 302): No ingredients listed.

SARA 302 (40 CFR 355): No ingredients listed.

SARA 313 (40 CFR 372): No ingredients listed.

SARA 311/312 (40 CFR 370): Immediate (Acute) Health, Delayed (Chronic) Health

Massachusetts Right to Know: 4- Methoxyphenol (p- Hydroxyanisole)

New Jersey Right to Know: 4- Methoxyphenol (p- Hydroxyanisole)

Pennsylvania Right to Know: 4- Methoxyphenol (p- Hydroxyanisole)

16 Other Information

Original Preparation Date: April 8, 2022

Prepared By: Haigh Industries Inc.

#5-8118 North Fraser Way

Burnaby BC Canada V5J 0E5

Disclaimer: This Safety Data Sheet (SDS) was prepared using information provided by ingredient supplier SDS and other relevant sources. This product has been classified using weight of evidence, expert judgment and previous testing as per Part 1.3 of the Fifth Edition of The Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The information in this SDS is offered for your consideration and guidance when exposed to this product. Haigh Industries Inc. expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of Haigh Industries Inc.

Revisions: None

Affixit