



SAFETY DATA SHEET

1. Identification

Material name: EUCEM AEM 2Z
Material: AEM 2Z

Recommended use and restriction on use

Recommended use: Additive
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Euclid Admixture Canada Inc.
2835 Grand-Allee
Saint Hubert QC J4T 2R4
CA

Contact person: EH&S Department
Telephone: (450)465-2233
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Carcinogenicity	Category 2

Unknown toxicity - Health

Acute toxicity, oral	12.35 %
Acute toxicity, dermal	27.45 %
Acute toxicity, inhalation, vapor	35.16 %
Acute toxicity, inhalation, dust or mist	35.2 %

Label Elements

Hazard Symbol:



Signal Word: Warning



Hazard Statement: Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: 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/attention. IF exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Coconut diethanolamide	68603-42-9	10 - <20%
Oleic acid	112-80-1	5 - <10%
Sodium (C14-16) Olefin Sulfonate	68439-57-6	1 - <3%
Glycerine	56-81-5	1 - <5%
Diethanolamine	111-42-2	0.1 - <1%
Sodium hydroxide	1310-73-2	0.1 - <1%
Ethanolamine	141-43-5	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: Move to fresh air.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.



Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Personal Protection for First-aid Responders: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Most important symptoms/effects, acute and delayed

Symptoms: Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Accidental release measures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Methods and material for containment and cleaning up:**

Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Environmental Precautions:

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage**Handling****Technical measures (e.g. Local and general ventilation):**

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Safe handling advice:

Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with skin.

Contact avoidance measures:

No data available.

Hygiene measures:

Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. Wash contaminated clothing before reuse. Avoid contact with skin.

Storage**Safe storage conditions:**

Store locked up.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Glycerine - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Glycerine - Respirable fraction.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Glycerine - Respirable particles.	TWA	3 mg/m ³	US. ACGIH Threshold Limit Values, as amended (01 2021)
Glycerine - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
	TWA	15 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Glycerine - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Glycerine - Inhalable	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values, as



particles.			amended (01 2021)
Glycerine - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Diethanolamine - Inhalable fraction and vapor.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values, as amended (2011)
Sodium hydroxide	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values, as amended (2008)
Ethanolamine	TWA	3 ppm	US. ACGIH Threshold Limit Values, as amended (2011)
	STEL	6 ppm	US. ACGIH Threshold Limit Values, as amended (2011)
	PEL	3 ppm 6 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)



Chemical name	Type	Exposure Limit Values	Source
Glycerine - Respirable mist.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Glycerine - Mist.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Glycerine - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Glycerine - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Glycerine - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Glycerine - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Glycerine - Total mist	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2021)
Diethanolamine	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Diethanolamine - Inhalable fraction and vapor.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Diethanolamine - Inhalable fraction and vapor.	TWA	1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Sodium hydroxide	CEV	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (12 2007)
Sodium hydroxide	CEILING	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Sodium hydroxide	CEILING	2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Ethanolamine	TWA	3 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	6 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethanolamine	STEL	6 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	TWA	3 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Ethanolamine	STEL	6 ppm 15 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	3 ppm 7.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)



Appropriate Engineering Controls Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Additional Information: Use suitable protective gloves if risk of skin contact.

Skin and Body Protection: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Avoid contact with eyes. Wash contaminated clothing before reuse. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Color: Brown

Odor: Characteristic

Odor threshold: No data available.

pH: 9.0 - 10.0

Melting point/freezing point: 0 °C 32 °F

Initial boiling point and boiling range: No data available.

Flash Point: No data available.

Evaporation rate: Slower than Ether

Flammability (solid, gas): No

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper: No data available.

Explosive limit - lower: No data available.

Vapor pressure: No data available.

Vapor density: No data available.

Relative density: 1.010 - 1.030

Solubility(ies)

Solubility in water: Soluble

Solubility (other): No data available.



Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Strong acids. Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

**Oral
Product:**



Specified substance(s):
Coconut diethanolamide LD 50 (Rat): 12,200 mg/kg

Oleic acid LD 50 (Rat): 74 g/kg

Glycerine LD 50 (Rat): 27,200 mg/kg

Diethanolamine LD 50 (Rat): 1,100 mg/kg

Sodium hydroxide LD 50 (Rabbit): 325 mg/kg

Ethanolamine LD 50 (Rat): 1,089 mg/kg

Dermal
Product: ATEmix: 29,128.39 mg/kg

Inhalation
Product:

Specified substance(s):
Glycerine LC 50: > 570 mg/m³

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):
Sodium hydroxide in vivo (Rabbit): Irritating , 24 h
Ethanolamine in vivo (Rabbit): Corrosive , 24 - 72 h

Serious Eye Damage/Eye Irritation
Product: No data available.
Specified substance(s):

Sodium hydroxide Rabbit, 1 d: Mild irritant
Rabbit, 24 - 72 hrs: Irritating

Respiratory or Skin Sensitization
Product: No data available.



Carcinogenicity

Product: Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Coconut diethanolamide Overall evaluation: Possibly carcinogenic to humans.

Diethanolamine Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

**Fish****Product:** No data available.**Specified substance(s):**

Oleic acid	LC 50 (Fathead minnow (<i>Pimephales promelas</i>), 24 h): 285 mg/l Mortality
Glycerine	LC 50 (Rainbow trout,donaldson trout (<i>Oncorhynchus mykiss</i>), 96 h): 51,000 - 57,000 mg/l Mortality LC 50 (<i>Carassius auratus</i> , 24 h): > 5,000 mg/l Experimental result, Supporting study LC 50 (<i>Pimephales promelas</i> , 96 h): 885 mg/l Experimental result, Supporting study LC 50 (<i>Cyprinodon variegatus</i> , 96 h): > 11,000 µg/l Experimental result, Supporting study LC 50 (<i>Oncorhynchus mykiss</i> , 96 h): 54,000 mg/l Experimental result, Key study
Diethanolamine	LC 50 (<i>Pimephales promelas</i> , 96 h): 1,370 mg/l Experimental result, Key study
Sodium hydroxide	LC 50 (Western mosquitofish (<i>Gambusia affinis</i>), 96 h): 125 mg/l Mortality
Ethanolamine	LC 50 (<i>Cyprinus carpio</i> , 96 h): 349 mg/l Experimental result, Key study

Aquatic Invertebrates**Product:** No data available.**Specified substance(s):**

Glycerine	LC 50 (<i>Daphnia magna</i> , 48 h): 1,955 mg/l experimental result Experimental result, Supporting study
Diethanolamine	EC 50 (<i>Ceriodaphnia dubia</i> , 48 h): 30.1 mg/l experimental result Experimental result, Key study
Sodium hydroxide	EC 50 (<i>Ceriodaphnia</i> sp., 48 h): 40.4 mg/l experimental result Experimental result, Key study
Ethanolamine	EC 50 (<i>Daphnia magna</i> , 48 h): 65 mg/l experimental result Experimental result, Key study

Chronic hazards to the aquatic environment:**Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Specified substance(s):**

Diethanolamine	NOAEL (<i>Daphnia magna</i>): 0.78 mg/l experimental result Experimental result, Key study
Ethanolamine	NOAEL (<i>Daphnia magna</i>): 0.85 mg/l experimental result Experimental result, Key study

**Toxicity to Aquatic Plants****Product:** No data available.**Persistence and Degradability****Biodegradation****Product:** No data available.**Specified substance(s):**

Glycerine	94 % Detected in water. Experimental result, Key study
Diethanolamine	93 % (28 d) Detected in water. Experimental result, Key study
Ethanolamine	> 90 % (21 d) Detected in water. Experimental result, Key study

BOD/COD Ratio**Product:** No data available.**Bioaccumulative potential****Bioconcentration Factor (BCF)****Product:** No data available.**Specified substance(s):**

Ethanolamine	Bioconcentration Factor (BCF): 9.2 Aquatic sediment QSAR, Key study
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Partition Coefficient n-octanol / water (log Kow)**Product:** No data available.**Specified substance(s):**

Oleic acid	Log Kow: 7.64
Glycerine	Log Kow: -1.76
Diethanolamine	Log Kow: -1.43 Log Kow: 1.43
Ethanolamine	Log Kow: -1.31

Mobility in soil: No data available.**Other adverse effects:** No data available.**13. Disposal considerations****Disposal methods:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Contaminated Packaging:** No data available.



14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Diethanolamine	100 lbs.
Sodium hydroxide	1000 lbs.
Methanol	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard
- Skin Corrosion or Irritation
- Serious eye damage or eye irritation
- Carcinogenicity

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

Not regulated.



US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65



WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:

Regulatory VOC (less water and exempt solvent) : 2 g/l

VOC Method 310 : 0.07 %

**Inventory Status:**

Australia Industrial Chem. Act (AIC):	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Ontario Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Mexico INSQ:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
Taiwan Chemical Substance Inventory:	One or more components in this



product are not listed on or exempt from the Inventory.

US TSCA Inventory:

All components in this product are listed on or exempt from the Inventory.

Switzerland New Subs
Notified/Registered:

One or more components in this product are not listed on or exempt from the Inventory.

Thailand DIW Existing Chemical Inv.
List:

One or more components in this product are not listed on or exempt from the Inventory.

Vietnam National Chemical Inventory:

One or more components in this product are not listed on or exempt from the Inventory.

EINECS, ELINCS or NLP:

One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision

Revision Date: 07/22/2022

Version #: 1.1

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.