

SAFETY DATA SHEET

1. Identification

GHS product identifier	AE-9A
MSDS Number	AE425
Product Code	95484296
Version #	06
Issue date	01-23-2012
CAS #	68002-97-1
Product use	Intermediate for manufacture of detergents.
Recommended Restrictions	Not available.
Synonym(s)	Ethoxylated C10-16 Alcohol
Manufacturer	P&G Chemicals Asia 238-A Thompson Road #21-01/10 Novena Square Tower A Singapore 307684 (65) 6824 5728 (day phone) PGChemMSDS.IM@pg.com CHEMTREC: +1-703-527-3887 Quality or Service Issues: 1-800-477-8899 or +1-513-626-6882

2. Hazards identification

GHS classification

Physical hazards	Explosives	Classification not possible	
	Flammable gases	Not applicable	
	Flammable aerosols	Not applicable	
	Oxidizing gases	Not applicable	
	Gases under pressure	Not applicable	
	Flammable liquids	Not classified	
	Flammable solids	Not applicable	
	Self-reactive substances and mixtures	Classification not possible	
	Pyrophoric liquids	Classification not possible	
	Pyrophoric solids	Not applicable	
	Self-heating substances and mixtures	Classification not possible	
	Substances and mixtures which, in contact with water, emit flammable gases	Classification not possible	
	Oxidizing liquids	Classification not possible	
	Oxidizing solids	Not applicable	
	Organic peroxides	Classification not possible	
	Corrosive to metals	Classification not possible	
	Health hazards	Acute toxicity, oral	Not classified
		Acute toxicity, dermal	Classification not possible
		Acute toxicity, inhalation	Not applicable
		Skin corrosion/irritation	Not classified
Serious eye damage/eye irritation		Category 1	
Sensitization, respiratory		Classification not possible	

	Sensitization, skin	Classification not possible
	Germ cell mutagenicity	Classification not possible
	Carcinogenicity	Classification not possible
	Reproductive toxicity	Classification not possible
	Specific target organ toxicity, single exposure	Classification not possible
	Specific target organ toxicity, repeated exposure	Classification not possible
	Aspiration hazard	Classification not possible
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Classification not possible
	Hazardous to the ozone layer	Not classified

GHS label elements

Signal word

Danger



Hazard statement

Causes serious eye damage. Very toxic to aquatic life.

Precautionary statement

Prevention

Wear eye/face protection. Avoid release to the environment. Not applicable.

Response

Collect spillage. IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Storage

Store in accordance with local/regional/national/international regulation.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Components	CAS #	Percent
ALCOHOLS, C10-16, ETHOXYLATED	68002-97-1	100
Additional components	CAS #	Percent
ETHYLENE OXIDE	75-21-8	<= 0.00001

4. First aid measures

First aid procedures

Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Skin

Rinse skin with water/shower. Get medical attention if irritation develops or persists. Call a POISON CENTER or doctor/physician if you feel unwell.

Eye

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists. Call a physician or poison control center immediately.

Ingestion

Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Notes to physician

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. Not applicable.

General advice

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Specific hazards arising from the chemical	Not available.
Protective equipment and precautions for firefighters	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out. Water runoff can cause environmental damage.

6. Accidental release measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Collect spillage. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.
Methods for cleaning up	<p>Large Spills: Prevent product from entering drains. Do not allow material to contaminate ground water system. Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water.</p> <p>Never return spills in original containers for re-use.</p>

7. Handling and storage

Handling	Do not get this material in contact with eyes. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Use care in handling/storage.
Storage	Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage. Nitrogen blanket recommended for large tanks (capacity 1000 m ³ or higher). Storage temperatures: 50 °C maximum. Unsuitable containers: copper, zinc, aluminum, copper alloy, zinc alloy, aluminum alloy.

8. Exposure controls / personal protection

Control parameters

US. ACGIH Threshold Limit Values

Additional components	Type	Value
ETHYLENE OXIDE (75-21-8)	TWA	1 ppm

Recommended monitoring procedures	Not available.
Recommended monitoring procedures	Not available.
Personal protective equipment	
General	Eye wash fountain is recommended.
Eye/face protection	Wear eye/face protection. Wear chemical protective equipment that is specifically recommended by the manufacturer.
Skin protection	Wear suitable protective clothing. Wear protective gloves. No special protective equipment required.
Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection	Not normally needed.

9. Physical and chemical properties

Appearance

Solid.

Physical state	Liquid.
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Color	Hazy.
Odor	Characteristic.
Odor threshold	Not available.
pH	6 - 7.5
Melting point/Freezing point	64 °F (17.8 °C)
Boiling point	527 °F (275 °C) decomposes
Flash point	>= 400 °F (>= 204.4 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability (Train fire)	Not available.
Flammability limits in air, lower, % by volume	Not available.
Flammability limits in air, upper, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	>= 1
Relative density	Not available.
Solubility (H2O)	100 %
Octanol/H2O coeff	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Specific gravity	<= 1

10. Stability and reactivity

Chemical stability	No hazards to be especially mentioned.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air.
Materials to avoid	Strong oxidizing substances. Strong acids. Strong bases.
Hazardous decomposition products	Peroxides. Peracids. Burning releases carbon monoxide - carbon dioxide.

11. Toxicological information

Toxicological data

Product	Test Results
ALCOHOLS, C10-16, ETHOXYLATED (68002-97-1)	Acute Oral LD50 Rat: 1000 - 2000 mg/kg Based on compositionally similar material
Additional components	Test Results
ETHYLENE OXIDE (75-21-8)	Acute Inhalation LC50 Dog: 1.8 mg/l 4 Hours Acute Inhalation LC50 Guinea pig: 1.5 mg/l 4 Hours Acute Inhalation LC50 Mouse: 1.505 mg/l 4 Hours Acute Inhalation LC50 Rat: 0.9 mg/l 1 Hours Acute Oral LD50 Guinea pig: 270 mg/kg Acute Oral LD50 Mouse: 280 mg/kg Acute Oral LD50 Rat: 72 mg/kg Acute Other LD50 Mouse: 175 mg/kg Acute Other LD50 Rat: 100 mg/kg
Routes of exposure	Eye contact.
Acute effects	Harmful if swallowed.
Carcinogenicity	
ACGIH Carcinogens	
ETHYLENE OXIDE (CAS 75-21-8)	A2 Suspected human carcinogen.

Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Other information	Not available.

12. Ecological information

Ecotoxicological data

Additional components

Test Results

ETHYLENE OXIDE (75-21-8)

LC50 Fathead minnow (*Pimephales promelas*): 73 - 96 mg/l 96 hours

Ecotoxicity
Acute toxicity to aquatic organisms (algae, Daphnia, and fish) is estimated to be between 1.8-12.1 mg/L based on tests of structurally similar materials (chain length and ethoxylation). Chronic toxicity to aquatic organisms (algae, Daphnia, and fish) is estimated to be between 0.9-2.4 mg/L based on long-term tests of structurally similar materials (chain length and ethoxylation). C12/14E9: Alcohol ethoxylates are rapidly and completely biodegradable in aerobic and anaerobic systems. Following release to the environment AE is not expected to accumulate in relevant environmental compartments to levels that pose a hazard to aquatic life or exposure through drinking water. Components of this product are hazardous to aquatic life.

Environmental effects	Harmful to aquatic life.
Persistence / degradability	Not established.
Bioaccumulation	Not established.
Aquatic toxicity	Very toxic to aquatic organisms.
Mobility	Not established.
Other adverse effects	Not established.

13. Disposal considerations

Disposal methods
Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

ADR

UN number	3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohol (C12-C16) poly (7-19) ethoxylates)
Hazard class	9
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions	IMDG Regulated Marine Pollutant.
Labels required	9
Hazard ID	90
Item	M6
Transport Category	3

IATA

UN number	3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Alcohol (C12-C16) poly (7-19) ethoxylates)
Hazard class	9
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions	IMDG Regulated Marine Pollutant.
ERG code	9L

IMDG

UN number	3082
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Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohol (C12-C16) poly (7-19) ethoxylates)
Hazard class	9
Subsidiary hazard class	•
Packing group	III
EmS No.	F-A, S-F
Environmental hazards	
Marine pollutant	Yes
Special precautions	IMDG Regulated Marine Pollutant.

RID

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohol (C12-C16) poly (7-19) ethoxylates)
Hazard class	9
UN number	3082
Packing group	III
Marine pollutant	Yes
Labels required	9
Item	M6
Transport Category	3



ADR



IATA



IMDG



RID

15. Regulatory information

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Switzerland	Switzerland FOPH	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

Disclaimer

The submission of the MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material of any other process. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

Revision date

01-23-2012

SDS sections updated

Product and Company Identification: Product and Company Identification