

1. SUBSTANCE / PREPARATION AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER : AQUAFILM V6701
SUPPLIER : Magnus USA Ltd
 7405 S. Bitterrot Place, Suite 101, Sioux Falls, SD 57108
 T 1 800 363 9929
EMERGENCY NUMBER : American Association of Poison Control Centers: 1 800 222 1222
 CANUTEC: 1 888 226 8832 (24 hours)
USE OF THE PREPARATION : All-organic corrosion inhibitor for steam boilers used in processing and heating food.

2. HAZARD IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE : SKIN CORROSION/IRRITATION - Category 1
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
 REPRODUCTIVE TOXICITY - Category 2
 SPECIFIC TARGET ORGAN TOXICITY, REPEATED EXPOSURE - Category 2
 CORROSIVE TO METALS - Category 1

LABEL ELEMENTS : This product has been classified and labeled according to HAZCOM 2012.

Hazard Pictograms :



Signal Word

: Danger

Hazard Statements

: H290 - May be corrosive to metals.
 : H314 - Causes severe skin burns and eye damage.
 : H361 - Suspected of damaging fertility or the unborn child.
 : H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: P201 - Obtain special instructions before use.
 : P202 - Do not handle until all safety precautions have been read and understood.
 : P234 - Keep only in original container.
 : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 : P264 - Wash face and hands thoroughly after handling.
 : P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Intervention

: P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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- : P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- : P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

- : P308+P313 - IF exposed or concerned: Get medical advice/attention.
- : P310 - Immediately call a POISON CENTER or doctor/physician.
- : P314 - Get medical advice/attention if you feel unwell.
- : P321 - Specific treatment (see first aid instructions on this label).

Storage

- : P331 - Do NOT induce vomiting.
- : P363 - Wash contaminated clothing before reuse.
- : P390 - Absorb spillage to prevent material damage.
- : P405 - Store locked up.
- : P406 - Store in corrosive resistant/metal container with a resistant inner liner.

Disposal

- : P501 - Dispose of contents/container in accordance with applicable laws and regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS	CONCENTRATION (Weight)
N,N-Diethylethanolamine	100-37-8	7-13
Cyclohexylamine	108-91-8	5-10
Oleylamine	112-90-3	1-5

There are no other ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

4. FIRST AID MEASURES

FIRST-AID MEASURES AFTER EYE CONTACT : Check for and remove contact lenses after the first 5 minutes of flushing. Rinse with plenty of water during at least 15 minutes holding open eyelids. Quickly consult a physician or an ophthalmologist.

FIRST-AID MEASURES AFTER SKIN CONTACT : Remove contaminated clothing and shoes while washing affected skin with soap and water during at least 15 minutes. Consult a physician if a discomfort or an irritation persists. Wash contaminated clothing before re-use.

- FIRST-AID MEASURES AFTER INHALATION** : Remove to fresh air. Keep warm (blanket). If breathing is difficult, trained personal should administer oxygen. If a discomfort persists, consult a physician.
- FIRST-AID MEASURES AFTER INGESTION** : Contact a physician or a poison-control center. DO NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Rinse mouth with water then drink plenty of water. If vomiting occurs, keep head below hips.
- OTHER FIRST AID** : Consult a physician

The symptoms/effects acute and delayed are listed under section 11.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

- Appropriate Extinguishing Media : Carbon dioxide, dry chemical, foam, water spray.
 Inappropriate Extinguishing Media : Do not use a strong spray of water.

FIRE FIGHTING

- Unusual Fire Hazards : None known.
 Hazardous combustion products : Nitrogen oxides. Carbon oxides.
 Advice for firefighters : Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing. Use water spray to cool fire exposed containers.

6. ACCIDENTAL RELEASE MEASURES

SAFETY PRECAUTIONS:

- Evacuate spill area ventilate properly.
- Use appropriate personal protective equipment.
- Practice good industrial hygiene when handling this product.
- Avoid all contact with skin, eyes and clothing.
- Avoid breathing overspray and vapors/mists/fogs.
- Consult safety measures listed under sections 7 and 8.

ENVIRONMENTAL SAFETY PRECAUTIONS AND CLEANING METHODS:

- Ensure appropriate ventilation.
- Contain spill or leak if it can be done without risk.
- Do not allow to enter soil, drains, streams and groundwater.
- In case of a large spill, pump product for recovery and disposal.
- Absorb spill with inert material (e.g. vermiculite, sand or earth).
- Use non-sparking and grounded tools/equipments.
- Pick up and put in suitable and identified container for disposal.
- Wash area with water.

7. HANDLING AND STORAGE

HANDLING:

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Open and handle the container with care.
 Practice good industrial hygiene when handling this product.
 Use appropriate personal protective equipment.
 Use in well ventilated area or under adequate ventilation.
 Avoid all contact with eyes, skin and clothing. Avoid breathing vapors and mists.
 Use non-sparking and grounded tools/equipments. Avoid static charges accumulation.

STORAGE:

Keep the container tightly closed in a dry, cool and well ventilated area.
 Keep away from incompatible materials.
 Keep the product in the original container
 Ground container.
 Avoid freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**CONTROL PARAMETERS:**

N,N-Diethylethanolamine (100-37-8)		
LIMIT/STANDARD	VALUE	SOURCE
TWA	10 ppm, the substance can be absorbed through the skin	NIOSH
STEL	Not available.	SUPPLIER
Cyclohexylamine (108-91-8)		
LIMIT/STANDARD	VALUE	SOURCE
TWA	10 ppm, 41 mg/m ³	NIOSH
STEL	Not available.	SUPPLIER
Oleylamine (112-90-3)		
LIMIT/STANDARD	VALUE	SOURCE
TWA	Not available.	SUPPLIER
STEL	Not available.	SUPPLIER

APPROPRIATE ENGINEERING CONTROL:

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.

Control measures to consider: General or local exhaust extraction able to maintain emissions below exposure limits. If ventilation is insufficient, wear an approved breathing apparatus.

PERSONAL PROTECTION:

Hand protection : Butyl rubber. Nitrile.
 Eye protection : Safety glasses and face-shield if splashing may occur.
 Respiratory protective equipment : Determine required respiratory equipments after evaluating the specific conditions and hazards in the workplace. If exposure limits are exceeded, use an approved respirator.
 Other protections : Antistatic boots. Chemical resistant apron. Long sleeved clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	:	Clear colorless liquid
ODOUR	:	Amine
ODOUR THRESHOLD	:	Not available.
pH	:	12.0-13.0
MELTING POINT/FREEZING POINT (°C)	:	0
INITIAL BOILING POINT/BOILING RANGE (°C)	:	100
FLASH POINT (°C)	:	Not applicable.
EVAPORATION RATE	:	Not available.
CONDITIONS OF FLAMMABILITY	:	None known.
LOWER FLAMMABLE/EXPLOSIVE LIMIT (%)	:	Not applicable.
UPPER FLAMMABLE/EXPLOSIVE LIMIT (%)	:	Not applicable.
VAPOUR PRESSURE (KPA)	:	Not available.
VAPOUR DENSITY	:	Not available.
RELATIVE DENSITY	:	0.96-0.98
SOLUBILITY	:	Complete
PARTITION COEFFICIENT - N-OCTANOL/WATER	:	Not available.
AUTO-IGNITION TEMPERATURE (°C)	:	Not available.
DECOMPOSITION TEMPERATURE	:	Not available.
VISCOSITY (MM ² /S (CST) AT 40°C)	:	Not applicable.
VOC CONTENT	:	Not available.

10. STABILITY AND REACTIVITY

REACTIVITY	:	Not available.
CHEMICAL STABILITY	:	Stable under the recommended storage conditions.
POSSIBILITY OF HAZARDOUS REACTIONS	:	No hazardous reactions when the product is stored and handled according to instructions.
CONDITIONS TO AVOID	:	Avoid temperatures higher than flash point, ignition sources, static accumulation, heat and contact with incompatible materials.
INCOMPATIBLE MATERIALS	:	Acids. Reducing agents. Aluminum. Acid anhydrides. Halogenated compounds. Sodium Hypochlorite. Isocyanates. Oxidizing agents. Peroxides.
HAZARDOUS DECOMPOSITION PRODUCTS	:	Nitrogen oxides. Carbon oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

N,N-Diethylethanolamine (100-37-8)

LD50 Oral (Rat) mg/kg : 1320

LD50 Dermal (Rabbit) mg/kg : 885

LC50 Inhalation (Rat) : 4.6 mg/L, 4h

Cyclohexylamine (108-91-8)

LD50 Oral (Rat) mg/kg : 300

LD50 Dermal (Rabbit) mg/kg : 277

LC50 Inhalation (Rat) : 7500 mg/m³, 4h**Oleylamine (112-90-3)**

LD50 Oral (Rat) mg/kg : Not available.

LD50 Dermal (Rabbit) mg/kg : Not available.

LC50 Inhalation (Rat) : Not available.

ROUTE OF ENTRY (EXPOSURE): : Skin absorption. Eye contact. Ingestion. Inhalation

EFFECTS OF ACUTE EXPOSURE

Eye contact : Burn. Irritation. Possibility of permanent damage. Possibility of pain. Tear production. Redness.
 Skin contact : Dryness. Burn. Irritation. Redness.
 Inhalation : Irritation of the respiratory tract if product is sprayed or in mist. Headache.
 Ingestion : Diarrhea. Irritation. Gastric discomfort. Nausea. Vomiting.

EFFECTS OF CHRONIC EXPOSURE

Carcinogenicity : Does not contain ingredient(s) at levels greater than or equal to 0,1% identified as carcinogenic according to NTP, IARC or OSHA.
 Reproductive toxicity : Contains a confirmed reprotoxic ingredient.
 Teratogenicity : Not available.
 Mutagenicity : Not available.
 Sensitization : Not available.
 Synergistic products : Not available.

12. ECOLOGICAL INFORMATION**ECOTOXICITY :****N,N-Diethylethanolamine (100-37-8)**

LC50 (Fish) : 147 mg/L, 96h (Species: Leuciscus idus melanotus)

EC50 (Other aquatic organisms) : 62,3 mg/L, 72h (Species: Scenedesmus subspicatus)

EC50 (Daphnia) : 83,6 mg/L, 48h (Species: Daphnia magna)

Cyclohexylamine (108-91-8)

LC50 (Fish) : 44 mg/L, 96h (Species: Oncorhynchus mykiss)

EC50 (Other aquatic organisms) : 20 mg/L, 96h (Species: Selenastrum capricornutum)

EC50 (Daphnia)	:	49 mg/L, 24h (Species: Daphnia magna)
Oleylamine (112-90-3)		
LC50 (Fish)	:	Not available.
EC50 (Other aquatic organisms)	:	Not available.
EC50 (Daphnia)	:	Not available.

PERSISTENCE AND DEGRADABILITY

N,N-Diethylethanolamine (100-37-8)

Readily biodegradable.

Cyclohexylamine (108-91-8)

Readily biodegradable.

Oleylamine (112-90-3)

Biodegradable 301B

BIOACCUMULATIVE POTENTIAL

N,N-Diethylethanolamine (100-37-8)

This material is not expected to bioaccumulate.

Cyclohexylamine (108-91-8)

This material is not expected to bioaccumulate.

Oleylamine (112-90-3)

Not available.

MOBILITY IN SOIL

N,N-Diethylethanolamine (100-37-8)

Adsorption to solid soil phase is not expected.

Cyclohexylamine (108-91-8)

This material has a high potential to sorb on soil.

Oleylamine (112-90-3)

Not available.

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regulations Do not allow to enter ground water, sewage or drains

14. TRANSPORT INFORMATION

IN ACCORDANCE WITH DOT

Regulated

UN NUMBER : UN2735
 HAZARD CLASS&DIVISION : 8
 PACKING GROUP : II
 DESCRIPTION / SHIPPING NAME : AMINES, LIQUID, CORROSIVE, N.O.S.
 (N,N-Diethylethanolamine)

ENVIRONMENTAL HAZARDS : Not a marine pollutant

TRANSPORT IN BULK (according to Annex II of MARPOL 73/78 and IBC Code) : Not available.

15. REGULATORY INFORMATION**NATIONAL REGULATIONS:**

HAZCOM 2012: This product has been classified in accordance with Regulation 2012 OSHA Hazard Communication Standard (HCS); 29 CFR Part 1910.1200

TSCA: All ingredients are either listed on the United States TSCA Inventory or in compliance with a TSCA Inventory exemption.

CA prop. 65: For more information about California proposition 65 status, please contact us at info@magnus.ca

16. OTHER INFORMATION

The opinions expressed herein are those of qualified experts within Magnus USA Ltd. We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and of these opinions and the conditions of use of the product are not within the control of Magnus USA Ltd, it is the user's obligation to determine the conditions of safe use of the product.

ACRONYMS/ABBREVIATION

AVAQMD : Antelope Valley Air Quality Management District
CAS : Identification number assigned by the Chemical Abstracts Service
CA Prop. 65 : California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act)
DOT : Department Of Transportation
EC50 : Median effective concentration
GHS : Globally Harmonized System
IARC : International Agency for Research on Cancer (IARC) Monographs
IATA : International Air Transport Association
IBC Code : International Bulk Chemical Code
IMDG : International Maritime Dangerous Goods
LC50 : Lethal concentration 50, in air or water
LD50 : Lethal concentration 50, depending on the route of exposure
MARPOL : International Convention for the Prevention of Pollution from Ships
NIOSH : National Institute for Occupational Safety & Health
NTP : National Toxicology Program (NTP) Report on Carcinogens
OSHA : Occupational Safety and Health Administration
STEL : Short-Term Exposure Limit (15 minutes)
TSCA : Toxic Substances Control Act
TWA : Time-Weighted Average (8 hours)
VOC : Volatile Organic Compound

OTHER TOXICOLOGICAL INFORMATION

PREPARATION : Magnus USA Ltd, Technical Department
DATE OF PREPARATION : 2021/08/11
DATE OF REVISION : 2021/08/11
TEL : 1 800 363 9929
CODE : 238721

END OF THE SDS