

# Safety Data Sheet

Version 4.0

Revision Date 02/04/2016

SDS Number 300000030172

Print Date 02/05/2016

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TOMAMINE® EMULSIFIER 300 HF

Product Use Description : Surfactant

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc  
7201 Hamilton Blvd.  
Allentown, PA 18195-1501  
GST No. 123600835 RT0001  
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate  
1-800-345-3148 Chemicals Cust Serv  
1-800-752-1597 Gases/Electronics Cust Serv

Emergency telephone number (24h) : 800-523-9374 USA  
+1 610 481 7711 International

## 2. HAZARDS IDENTIFICATION

### GHS classification

Acute toxicity - Oral Category 4  
Skin corrosion - Category 2  
Serious Eye Damage - Category 1

### GHS label elements

#### Hazard pictograms/symbols



Signal Word: Danger

#### Hazard Statements:

H302:Harmful if swallowed.  
H318:Causes serious eye damage.  
H315:Causes skin irritation.

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## Precautionary Statements:

- Prevention** : P264:Wash hands thoroughly after handling.  
P270:Do not eat, drink or smoke when using this product.  
P280:Wear protective gloves/protective clothing/eye protection/face protection.
- Response** : P301+P312 :IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P301+P330+P331 :IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
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.  
P310 :Immediately call a POISON CENTRE/doctor.  
P363 :Wash contaminated clothing before reuse.
- Storage** : P405:Store locked up.
- Disposal** : P501:Disposal of contents/container to be specified in accordance with regulations.

## Hazards not otherwise classified

Severe skin irritant.  
Risk of serious damage to eyes.  
Harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
Fatty acids, coco, reaction products with diethylenetriamine and soya fatty acids, ethoxylated, chloromethane-quaternized	68604-75-1	70% - 80 %
HEXYLENE GLYCOL	107-41-5	10% - 20 %
Propylene glycol	57-55-6	< 5 %
Ethanol, 2-chloro-	107-07-3	< 7 %

CHEMICAL FAMILY: Quaternary Amine

## 4. FIRST AID MEASURES

- General advice** : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

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- Eye contact : Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.
- Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.
- Ingestion : Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : Move to fresh air.
- Most important symptoms/effects - acute and delayed : Eye disease. Skin disorders and Allergies.
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## 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam.  
Carbon dioxide (CO<sub>2</sub>).  
Dry chemical.  
Dry sand.  
Limestone powder.
- Specific hazards : Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
- Special protective equipment for fire-fighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
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## 6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment, and Emergency Procedures : Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
- Environmental precautions : Construct a dike to prevent spreading. Construct a dike to prevent spreading.
- Methods for cleaning up : Contact Air Products' Emergency Response Center for advice. Approach suspected leak areas with caution. Place in appropriate chemical waste container.
- Additional advice : If possible, stop flow of product.
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## 7. HANDLING AND STORAGE

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## Handling

Overheating of a quaternary amine for prolonged periods above 180 F (82.22 C) can cause product to degrade. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

## Storage

Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage Temperature : 40 - 90 °F (4.44 - 32.22 °C)

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Engineering measures

Provide readily accessible eye wash stations and safety showers.  
Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

### Personal protective equipment

- Respiratory protection : Not required for properly ventilated areas.
- Hand protection : Neoprene gloves.  
Nitrile rubber.  
Polyvinyl Alcohol Gloves (PVA).  
Impervious gloves.  
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Chemical resistant goggles must be worn.
- Skin and body protection : Long sleeve shirts and trousers without cuffs.
- Environmental exposure controls : Construct a dike to prevent spreading.
- Special instructions for protection and hygiene : Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations and safety showers.

### Exposure limit(s)

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HEXYLENE GLYCOL	Ceiling Limit Value: ACGIH	25 ppm	-
HEXYLENE GLYCOL	Ceiling Limit Value and Time Period (if specified): NIOSH	25 ppm	125 mg/m3
HEXYLENE GLYCOL	Ceiling Limit Value: OSHA Z1A	25 ppm	125 mg/m3
HEXYLENE GLYCOL	Ceiling Limit Value: TN OEL	25 ppm	125 mg/m3
Propylene glycol	Time Weighted Average (TWA): WEEL	-	10 mg/m3
Ethanol, 2-chloro-	Ceiling Limit Value: ACGIH	1 ppm	-
Ethanol, 2-chloro-	Ceiling Limit Value and Time Period (if specified): NIOSH	1 ppm	3 mg/m3
Ethanol, 2-chloro-	Permissible exposure limit: OSHA Z1	5 ppm	16 mg/m3
Ethanol, 2-chloro-	Ceiling Limit Value: OSHA Z1A	1 ppm	3 mg/m3
Ethanol, 2-chloro-	Ceiling Limit Value: TN OEL	1 ppm	3 mg/m3

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid. Amber.
Odor	: No data available.
Odor threshold	: No data available.
pH	: 5 - 7
Melting point/range	: No data available.
Boiling point/range	: > 95 °F (> 35 °C)
Flash point	: 324 °F (162 °C)
Evaporation rate	: No data available.
Flammability (solid, gas)	: Not applicable.
Upper/lower explosion/flammability limit	: Not applicable.
Vapor pressure	: 1.80 mmHg
Water solubility	: Completely soluble.
Relative vapor density	: Not applicable.
Relative density	: 0.97
Partition coefficient (n-octanol/water)	: No data available.

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Auto-ignition temperature : No data available.  
Decomposition temperature : No data available.  
Viscosity : 194 mPa.s at 77 °F (25 °C)  
Molecular Weight : No data available.

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## 10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal conditions.

Conditions to avoid : No data available.

Materials to avoid : Reactive metals (e.g. sodium, calcium, zinc etc.).  
Materials reactive with hydroxyl compounds.  
Dehydrating Agents.  
Organic acids (i.e. acetic acid, citric acid etc.).  
Mineral acids.  
Sodium hypochlorite.  
Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.  
Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.  
Oxidizing agents.

Hazardous decomposition products : Nitric acid.  
Ammonia  
Nitrogen oxides (NO<sub>x</sub>).  
Nitrogen oxide can react with water vapors to form corrosive nitric acid.  
Carbon monoxide.  
Carbon dioxide (CO<sub>2</sub>).  
Aldehydes  
Flammable hydrocarbon fragments.  
Heating above 65 °C in the presence of strong base can liberate flammable hydrocarbon fragments.  
Carbon oxides.  
Under lean oxygen conditions and temperatures above 180F, hydrochloric acid, amides, and low molecular weight hydrocarbons can be produced.

Possibility of hazardous Reactions/Reactivity : No data available.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Likely routes of exposure

Effects on Eye : Severe eye irritation.

Effects on Skin : No data available.

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- Inhalation Effects : No data available.
- Ingestion Effects : Harmful if swallowed.
- Symptoms : No data available.

## Acute toxicity

- Acute Oral Toxicity : LD50 : > 1,000 mg/kg Species : Rat. Information given is based on data on the components and the toxicology of similar products.
- Inhalation : LC50 (4 h) : > 1 mg/l Species : Rat. (as aerosol) Information given is based on data on the components and the toxicology of similar products. Testing was performed on this or similar materials.
- Acute Dermal Toxicity : LD50 : > 2,000 mg/kg Species : Rabbit. Information given is based on data on the components and the toxicology of similar products.
- Skin corrosion/irritation : Severe skin irritation.
- Serious eye damage/eye irritation : Severe eye irritation.
- Sensitization. : No data available.

## Chronic toxicity or effects from long term exposures

- Carcinogenicity : No data available.
- Reproductive toxicity : No data is available on the product itself.
- Germ cell mutagenicity : No data is available on the product itself.
- Specific target organ systemic toxicity (single exposure) : No data available.
- Specific target organ systemic toxicity (repeated exposure) : No data available.
- Aspiration hazard : No data available.

## Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Eye disease., Skin disorders and Allergies.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to fish - Components  
Propylene glycol

LC50 (96 h) : 55,770 mg/l

Species : Fathead  
minnow (*Pimephales  
promelas*).

Toxicity to daphnia - Components  
Propylene glycol

EC50 (48 h) : > 10,000 mg/l

Species : Daphnia

Toxicity to other organisms : No data available.

### Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : No data available.

Bioaccumulation : No data is available on the product itself.

Bioaccumulation - Components  
Propylene glycol

Negligible bioaccumulation potential.

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## 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : Contact supplier if guidance is required.

Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

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## 14. TRANSPORT INFORMATION

### DOT

Not dangerous goods

### IATA

Not dangerous goods



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## IMDG

Not dangerous goods

## TDG

Not dangerous goods

## Further Information

Not classified as dangerous in the meaning of transport regulations. The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

## 15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Not on Inventory.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Not on Inventory.
South Korea	ECL	Not on Inventory.
China	SEPA	Air Products has received a simplified registration certificate from the Chinese government to import, manufacture or use.
China	SEPA	Air Products has received a polymer exemption from the Chinese government to import, manufacture or use.
Philippines	PICCS	Not on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification  
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level  
None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)  
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

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## 16. OTHER INFORMATION

### HMIS Rating

Health : 2  
Flammability : 1  
Physical hazard : 0

Prepared by : Air Products and Chemicals, Inc. Global EH&S Product Safety Department

Telephone : 1-610-481-4911 Corporate  
1-800-345-3148 Chemicals Cust Serv  
1-800-752-1597 Gases/Electronics Cust Serv

Preparation Date : 02/05/2016

For additional information, please visit our Product Stewardship web site at  
<http://www.airproducts.com/productstewardship/>

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