

# Material Safety Data Sheet

Version 2.0  
Revision Date 11/05/2014

SDS Number 300000019085  
Print Date 11/06/2014

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TOMADOL<sup>®</sup> 25-12 SURFACTANT

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  
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.

#### Precautionary Statements:

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- Prevention : P264:Wash hands thoroughly after handling.  
P270:Do not eat, drink or smoke when using this product.  
:Wear eye protection/face protection.
- Response : P301+P312 :IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
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 or doctor/physician.  
P330 :Rinse mouth.
- Disposal : P501:Disposal of contents/container to be specified in accordance with regulations.

## Hazards not otherwise classified

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
ALCOHOLS, C12-15, ETHOXYLATED	68131-39-5	100 %

CHEMICAL FAMILY: Non acetylenic surfactant

## 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.
- 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 : Eye disease. Skin disorders and Allergies.

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symptoms/effects - acute  
and delayed

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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. 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.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.

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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 : Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways. 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

### Handling

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

Keep away from direct sunlight. Overheating of an ethoxylate stored under air should be avoided. When an ethoxylate is vigorously mixed in the presence of air or oxygen at temperatures >125 F (50 C), it can degrade product quality. Storage under an inert atmosphere is recommended.  
Keep containers tightly closed in a dry, cool and well-ventilated place.

Storage Temperature : 80 - 125 °F (26.67 - 51.67 °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.  
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 : Use appropriate containment to avoid environmental contamination. Do not allow spill to enter into sewers or waterways.

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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid. Hazy.

Odor : Mild.

Odor threshold : No data available.

pH : No data available.

Melting point/range : 68 - 93 °F (20 - 33.89 °C) 81 °F (27.22 °C)

Boiling point/range : > 500 °F (> 260 °C)

Flash point : > 210 °F (> 98.89 °C)

Evaporation rate : No data available.

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Flammability (solid, gas)	: Not applicable.
Upper/lower explosion/flammability limit	: Not applicable.
Vapor pressure	: 2.61 mmHg
Water solubility	: 100 g/l
Relative vapor density	: Not applicable.
Relative density	: 1.021
Partition coefficient (n-octanol/water)	: No data available.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity	: No data available.
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. Copper alloys Strong acids. Oxidizing agents.
Hazardous decomposition products	: Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ). Aldehydes Flammable hydrocarbon fragments.
Possibility of hazardous Reactions/Reactivity	: No data available.

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## 11. TOXICOLOGICAL INFORMATION

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## 11.1 Information on toxicological effects

### Likely routes of exposure

- Effects on Eye : Severe eye irritation.
- Effects on Skin : Causes skin irritation.
- Inhalation Effects : Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
- Ingestion Effects : Harmful if swallowed.
- Symptoms : No data available.

### Acute toxicity

- Acute Oral Toxicity : LD50 : 1,830 mg/kg Species : Rat.
- Inhalation : No data is available on the product itself.
- Acute Dermal Toxicity : LD50 : 2,480 mg/kg Species : Rabbit.
- Skin corrosion/irritation : Moderate 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

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This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1

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percent or greater. Eye disease., Skin disorders and Allergies.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Aquatic toxicity : LC50 (96 h) : 1.4 mg/l Species : Fathead minnow (*Pimephales promelas*).  
NOEC (96 h) : 0.66 mg/l Species : Fathead minnow (*Pimephales promelas*).  
EC50 (48 h) : 1.4 mg/l Species : *Daphnia magna*.  
NOEC (48 h) : 0.51 mg/l Species : *Daphnia magna*.  
EbC50 (96 h) : 0.44 mg/l Species : *Selenastrum capricornutum*  
(*Pseudokirchneriella subcapitata*)  
NOEC (96 h) : 0.11 mg/l Species : *Selenastrum capricornutum*  
(*Pseudokirchneriella subcapitata*)

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.

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## 13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : The product should not be allowed to enter drains, water courses or the soil; dispose of this material and its container in a safe way. 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

UN/ID No. : UN3082

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Proper shipping name : Environmentally hazardous substance, liquid, n.o.s., (Alcohols C12-15 ethoxylated)  
Class or Division : 9  
Packing group : III  
Label(s) : 9  
Marine Pollutant : Yes

**\*\* NOTE:** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

## IMDG

UN/ID No. : UN3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Alcohols C12-15 ethoxylated)  
Class or Division : 9  
Packing group : III  
Label(s) : 9  
Marine Pollutant : Yes

**\*\* NOTE:** This product contains a substance that: 1) is regulated as a Marine Pollutant, or 2) meets the definition of toxic to the aquatic environment.

## TDG

Not dangerous goods

## Further Information

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.

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## 15. REGULATORY INFORMATION

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

None.

CERCLA Reportable Quantity (RQ):  
10,000,000 lbs

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer



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		substance, monomers included on EINECS inventory or no longer polymer.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.
Canada	DSL	Included 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.

This product meets the criteria of the US EPA Design for Environment (DfE) Surfactant screen and is listed on CleanGredients.

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