

# Safety Data Sheet

Version 2.2  
Revision Date 02/04/2015

SDS Number 300000048581  
Print Date 05/17/2015

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TOMADOL<sup>®</sup> 902 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.  
P280: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.  
Mild respiratory tract irritant.  
Mild skin irritant.  
Risk of serious damage to eyes.  
Harmful by inhalation.  
Harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
Alcohols, C9-11, ethoxylated	68439-46-3	60% - 100 %

## 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. Wash off with soap and water. 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. If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should

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begin cardiopulmonary resuscitation immediately. Move to fresh air.

Most important symptoms/effects - acute and delayed : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Eye disease. Asthma.

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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.

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## 6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective Equipment, and Emergency Procedures : Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.
- Environmental precautions : 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 : Open enclosed spaces to outside atmosphere. 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. Use only in well-ventilated areas. Avoid contact with eyes. Avoid breathing vapors and/or aerosols. 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.

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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 : Wear appropriate respirator when ventilation is inadequate.

Hand protection : Neoprene gloves.

Nitrile rubber.

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.

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. Water White.

Odor : Mild.

Odor threshold : No data available.

pH : No data available.

Melting point/range : -64 - 56 °F (-53.3 - 13.3 °C)

Boiling point/range : > 3,711 °F (> 204,4 °C)

Flash point : 284 °F (140 °C) closed cup

Evaporation rate : No data available.

Flammability (solid, gas) : Not applicable.

Upper/lower explosion/flammability limit : Not applicable.

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Vapor pressure	: 14.14 mmHg at 70 °F (21 °C)
Water solubility	: Completely soluble.
Relative vapor density	: Not applicable.
Relative density	: No data available.
Partition coefficient (n-octanol/water)	: No data available.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity	: 44.9 mPa.s at 77 °F (25 °C)
Molecular Weight	: No data available.
Density	: 61.804 lb/ft <sup>3</sup> (0.99 g/cm <sup>3</sup> ) at 70 °F (21 °C)

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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

### 11.1 Information on toxicological effects

Likely routes of exposure

Effects on Eye : Severe eye irritation.

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- Effects on Skin : Mild skin irritation.
- Inhalation Effects : May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. Harmful if inhaled.
- Ingestion Effects : Harmful if swallowed.
- Symptoms : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Eye disease., Asthma.

## Acute toxicity

Acute Oral Toxicity : No data is available on the product itself.

Acute Oral Toxicity - Components  
Alcohols, C9-11, ethoxylated

LD50 : 1,400  
mg/kgEstimated.

Species : Rat.

Inhalation : No data is available on the product itself.

Acute Dermal Toxicity : No data is available on the product itself.

Acute Dermal Toxicity - Components  
Alcohols, C9-11, ethoxylated

LD50 : > 5,000 mg/kg

Species : Rabbit.

Skin corrosion/irritation : Mild 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 percent or greater. Eye disease., Asthma.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

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

Toxicity to fish - Components Alcohols, C9-11, ethoxylated	LC50 (96 h) : 1 - 10 mg/l	Species : Fathead minnow (Pimephales promelas).
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Toxicity to daphnia - Components Alcohols, C9-11, ethoxylated	EC50 (48 h) : 1 - 10 mg/l	Species : Daphnia
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Toxicity to algae - Components Alcohols, C9-11, ethoxylated	ErC50 (96 h) : 1 - 10 mg/l	Species : Algae.
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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 : 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

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## IATA

Not dangerous goods

## 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	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
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.

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)



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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.

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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

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

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