



STERIS®

DA-7645®

Process and Research Cleaner

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/31/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : DA-7645®
Product code : 1165

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For industrial and institutional use only. Not for home use.
Use of the substance/mixture : Process & Research Cleaner

1.3. Details of the supplier of the safety data sheet

STERIS Corporation
P. O. Box 147, St. Louis, MO 63166, US
Telephone Number for Information: 1-800-444-9009 (Customer Service-Scientific Products)

1.4. Emergency telephone number

Emergency number : US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2 H315
Eye Irrit. 2A H319
Carc. 2 H351

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H351 – Suspected of causing cancer (inhalation).

Precautionary statements (GHS-US) : P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
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.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

No additional information available.

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2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

Full text of H-phrases: see Section 16.

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Benzenesulfonic acid, C10-16-alkyl derivatives	(CAS No) 68584-22-5	8 - 15	Eye Irrit. 2A, H319
Dipropylene glycol monomethyl ether	(CAS No) 34590-94-8	5 – 10	Flam. Liq. 4, H227
Coconut diethanolamide	(CAS No) 68603-42-9	7 - 9	Skin Irrit. 2, H315 Carc. 2, H351
Sodium hydroxide	(CAS No) 1310-73-2	1 - 5	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318
Diethanolamine	(CAS No) 111-42-2	< 0.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351 STOT RE 2, H373
Sulfuric acid	(CAS No) 7664-93-9	0.1 - 0.5	Skin Corr. 1A, H314

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove patient to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical attention.
First-aid measures after skin contact	: Immediately flush skin with plenty of water for at least 15 minutes. Remove immediately all contaminated clothing. Obtain medical attention.
First-aid measures after eye contact	: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention immediately.
First-aid measures after ingestion	: If swallowed, rinse mouth with water or milk (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Give water to drink if victim completely conscious/alert.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: Suspected of causing cancer (inhalation). The inhalation of airborne droplets or aerosols causes irritation of the respiratory tract. Mists and vapor may cause light-headedness.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Can occur: Gastrointestinal disturbance. Abdominal pain.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Foam, carbon dioxide, dry chemical.

5.2. Special hazards arising from the substance or mixture

No additional information available.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Cool closed containers exposed to fire with water spray. Do not get water inside containers.
- Protective equipment for firefighters : Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
- Other information : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NOx), and sulfur oxides.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid inhalation of vapor and spray mist. Avoid contact with skin, eyes and clothes. Use personal protective equipment as required. Stop leak if safe to do so.

6.1.1. For non-emergency personnel

- Protective equipment : Wear suitable protective clothing. For further information refer to Section 8: Exposure-controls/personal protection.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ensure adequate ventilation.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Neutralize spill carefully with any weak acid and flush remainder with plenty of water. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect in closed containers for disposal. Store away from other materials. Consult hazardous waste contractor for disposal of large amounts. Wash contaminated areas with large quantities of water to a sanitary sewer, if in accordance with local, state, or national legislation. Ensure all national/local regulations are observed.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Product for industrial use only. Read label before use. Avoid contact with skin, eyes and clothing. Avoid breathing mist or vapor. Keep container closed when not in use. Provide good ventilation in process area to prevent formation of vapor. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Hygiene measures : Wash hands thoroughly after handling. Take care for general good hygiene and housekeeping. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : A washing facility/water for eye and skin cleaning purposes should be present. Provide adequate ventilation. Comply with applicable regulations.
- Storage conditions : Keep only in the original container in a cool, well ventilated place. Keep away from incompatible materials. Keep container closed when not in use.
- Incompatible materials : Oxidizer.

7.3. Specific end use(s)

No additional information available.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diethanolamine (111-42-2)		
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
Sulfuric acid (7664-93-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³
Sodium hydroxide (1310-73-2)		
USA ACGIH	ACGIH TLV (ceiling) (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (ceiling) (mg/m ³)	2 mg/m ³
Dipropylene glycol methyl ether (34590-94-8)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	USA STEL (ppm)	150 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	600 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm

8.2. Exposure controls

Appropriate engineering controls : Provide local exhaust or general room ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure. Personal Protective Equipment (PPE) should be selected based upon the conditions under which this product is handled or used. Protective clothing. Gloves. Protective goggles. For certain operations, additional PPE may be required.



Hand protection : Wear rubber gloves.

Eye protection : Wear chemical splash goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Rubber apron, boots.

Respiratory protection : The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear
Color	: Amber to orange
Odor	: Slight odor
Odor threshold	: No data available
pH	: 9.5 Approximately
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available

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Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: ca. 1.029 g/ml Specific Gravity
Solubility	: Water: Completely soluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available.

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

Oxidizer.

10.6. Hazardous decomposition products

Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, NO_x, and sulfur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Suspected of causing cancer (inhalation). Causes skin and serious eye irritation.

Dipropylene glycol monomethyl ether (34590-94-8)	
LD50 oral rat	5230 mg/kg
LD50 dermal rat	9500 mg/kg
ATE CLP (oral)	5230.000 mg/kg bodyweight
ATE CLP (dermal)	9500.000 mg/kg bodyweight

Diethanolamine (111-42-2)	
LD50 oral rat	0.62 ml/kg
ATE CLP (oral)	500.000 mg/kg bodyweight

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
LD50 oral rat	5230 mg/kg
LD50 dermal rat	9500 mg/kg
ATE CLP (oral)	5230.000 mg/kg bodyweight
ATE CLP (dermal)	9500.000 mg/kg bodyweight

Sulfuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
LC50 inhalation rat (mg/l)	510 mg/m ³ (Exposure time: 2 h)

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE CLP (dermal)	1350.000 mg/kg bodyweight

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Diethanolamine (111-42-2)	
IARC Group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	1 - Evidence of Carcinogenicity

Sulfuric acid (7664-93-9)	
IARC Group	1 - Carcinogenic to humans

Coconut diethanolamide (68603-42-9)	
IARC Group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	1 - Evidence of Carcinogenicity

Skin corrosion/irritation	:	Causes skin irritation. pH: 9.5 Approximately
Serious eye damage/irritation	:	Causes serious eye irritation. pH: 9.5 Approximately
Respiratory or skin sensitisation	:	Causes skin irritation. Mists and vapor could irritate nasal passages and cause light-headedness Based on available data, the classification criteria are not met.
Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met.
Carcinogenicity	:	Suspected of causing cancer (inhalation).
Reproductive toxicity	:	Not classified Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	:	Not classified Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	:	Not classified Based on available data, the classification criteria are not met.
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met.
Potential Adverse human health effects and symptoms	:	Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

Diethanolamine (111-42-2)	
LC50 fishes 1	4460 - 4980 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	7.8 mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)
LC50 fish 2	1200 - 1580 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 other aquatic organisms 2	2.1 - 2.3 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
LC50 fishes 1	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Sulfuric acid (7664-93-9)	
LC50 fishes 1	> 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])

Coconut diethanolamide (68603-42-9)	
LC50 fishes 1	3.6 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

Sodium hydroxide (1310-73-2)	
LC50 fishes 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Dipropylene glycol monomethyl ether (34590-94-8)	
LC50 fishes 1	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)

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12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established
Diethanolamine (111-42-2)	
BCF fish 1	(no significant bioconcentration)
Log Pow	-2.18 (at 25 °C)
Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
Log Pow	2 (at 23 °C)
Sulfuric acid (7664-93-9)	
BCF fish 1	(no bioaccumulation)
Dipropylene glycol monomethyl ether (34590-94-8)	
	-0.064 (at 20 °C)

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not contaminate water with the product or its container (Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads). High concentration in receiving water will injure aquatic life by pH effect. Do not re-use empty containers.
Additional information	: Never return unused material to original container. Empty containers should be thoroughly rinsed with large quantities of clean water. Dispose of empty containers and wastes safely. Containers may be sent for reconditioning, recycling. Dispose in a safe manner in accordance with local/national regulations. Small spills may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations.

Additional information

Other information : No supplementary information available.

ADR

Transport document description : Non-hazardous.

Transport by sea

: Non-hazardous.

Air transport

: Non-hazardous.

SECTION 15: Regulatory information

15.1. US Federal regulations

DA-7645 [®] - Process and Research Cleaner	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	20000 lb

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Diethanolamine (111-42-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	100 lb
SARA Section 313 - Emission Reporting	1.0 %

Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sulfuric acid (7664-93-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on SARA Section 302 (Specific toxic chemical listings)
Listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000
SARA Section 313 - Emission Reporting	1.0 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

Coconut diethanolamide (68603-42-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium hydroxide (1310-73-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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Dipropylene glycol monomethyl ether (34590-94-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
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15.2. US State regulations

Not applicable.

SECTION 16: Other information

Other Information

: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 4	Flammable liquids, Category 4
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure), Category 2
H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

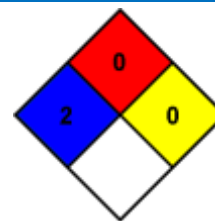
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NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	: 0 - Materials that will not burn.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)- US

The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.