

# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>MATRIX SOCOLOR ULTRA LIFT PERMANENT HAIR COLOUR - GROUP 1</b>
<b>Other means of identification</b>	
<b>SDS number</b>	80-21-0000264
<b>Recommended use</b>	Personal care product used for cosmetic effect.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	

**US Address:** L'Oreal USA Products, Inc  
133 Terminal Avenue  
Clark, NJ 07066  
USA

**Canadian Address:** L'Oreal Canada  
4895 rue Hickmore  
Ville St-Laurent, H4T 1K5  
Canada

**Emergency Phone # :** 1-800-535-5053 (International: 352-323-3500)  
In Canada - 1-613-996-6666 (Canutec (\*666 Cellular))

**For further Information:** 1-732-499-2741

**Poison Control # :** 412-390-3326

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
<b>OSHA defined hazards</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.
<b>Precautionary statement</b>	
<b>Prevention</b>	Do not breathe mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
ETHANOLAMINE		141-43-5	< 8
AMMONIUM HYDROXIDE		1336-21-6	< 6
OLEYL ALCOHOL		68002-94-8	< 3
LAURETH-12		68439-50-9	≤ 5
CITRIC ACID		77-92-9	< 2
N,N-BIS(2-HYDROXYETHYL)-p-PH ENYLENEDIAMINE SULFATE		54381-16-7	< 0.2
RESORCINOL		108-46-3	< 0.2
TOLUENE-2,5-DIAMINE		95-70-5	≤ 0.1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

No unusual fire or explosion hazards noted.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Store in tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection****Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
AMMONIUM HYDROXIDE (CAS 1336-21-6)	PEL	35 mg/m3
		50 ppm
ETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m3
		3 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
AMMONIUM HYDROXIDE (CAS 1336-21-6)	STEL	35 ppm
	TWA	25 ppm
ETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
RESORCINOL (CAS 108-46-3)	STEL	20 ppm
	TWA	10 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
AMMONIUM HYDROXIDE (CAS 1336-21-6)	STEL	27 mg/m3
		35 ppm
	TWA	18 mg/m3
ETHANOLAMINE (CAS 141-43-5)		25 ppm
	STEL	15 mg/m3
		6 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
RESORCINOL (CAS 108-46-3)	TWA	8 mg/m <sup>3</sup>
		3 ppm
	STEL	90 mg/m <sup>3</sup>
		20 ppm
	TWA	45 mg/m <sup>3</sup>
		10 ppm

**US. Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	TWA	0.025 mg/m <sup>3</sup>
		0.005 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines****US WEEL Guides: Skin designation**

TOLUENE-2,5-DIAMINE (CAS 95-70-5)

Can be absorbed through the skin.

**Appropriate engineering controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection****Hand protection**

Applicable for industrial settings only. Wear appropriate chemical resistant gloves.

**Other**

Applicable for industrial settings only. Wear appropriate chemical resistant clothing.

**Respiratory protection**

Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**9. Physical and chemical properties****Appearance****Physical state**

Liquid.

**Color**

Shaded

**Odor**

Not available.

**Odor threshold**

Not available.

**pH**

10.5

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

> 212 °F (> 100 °C)

**Flash point**

> 212.0 °F (> 100.0 °C) Closed Cup

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Not applicable.

**Upper/lower flammability or explosive limits****Flammability limit - lower (%)**

Not available.

<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong acids. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns. May cause an allergic skin reaction.
	Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Causes digestive tract burns.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
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### Information on toxicological effects

<b>Acute toxicity</b>	Not known.
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<b>Product</b>	<b>Species</b>	<b>Test Results</b>
MATRIX SOCOLOR ULTRA LIFT PERMANENT HAIR COLOUR - GROUP 1		
<b><u>Acute</u></b>		
<b>Dermal</b>		
ATEmix		33500 mg/kg
<b>Oral</b>		
ATEmix		4677 mg/kg

Components	Species	Test Results
AMMONIUM HYDROXIDE (CAS 1336-21-6)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	Rat	11590 mg/l, 1 h
<b>Oral</b>		
LD50	Rat	350 mg/kg bw OECD 401
CITRIC ACID (CAS 77-92-9)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg bw OECD 402
<b>Oral</b>		
LD50	Mouse	5400 mg/kg bw OECD 401
ETHANOLAMINE (CAS 141-43-5)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	2504 mg/kg OECD 402
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Rat	> 1.3 mg/l, 6 h
<b>Oral</b>		
LD50	Rat	1515 mg/kg OECD 401
LAURETH-12 (CAS 68439-50-9)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg OECD 402
<b>Inhalation</b>		
<i>Aerosol</i>		
LC50	Rat	> 1.6 mg/l, 4 h OECD 403
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg OECD 401
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Rat	264 mg/kg
OLEYL ALCOHOL (CAS 68002-94-8)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	8000 mg/kg Based on test data for structurally similar materials.
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg OECD 401
RESORCINOL (CAS 108-46-3)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	2830 mg/kg FHSL Act
<b>Inhalation</b>		
<i>Aerosol</i>		
LC0	Rat	> 7800 mg/m <sup>3</sup> , 1 h FHSL Act
<b>Oral</b>		
LD50	Rat	510 mg/kg OECD 401

Components	Species	Test Results
TOLUENE-2,5-DIAMINE (CAS 95-70-5)		
<b>Oral</b>		
LD50	Rat	102 mg/kg OECD 401
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	3520 mg/kg
<b>Inhalation</b>		
<i>Dust</i>		
LC50	Rat	0.99 mg/l, 4 h
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Irritation Corrosion - Skin</b>		
RESORCINOL	FHLS Act, (100%) Result: Irritating Species: Rabbit	
ETHANOLAMINE	OECD 404 Result: Corrosive Species: Rabbit	
AMMONIUM HYDROXIDE	OECD 404 Result: Corrosive Species: Rat	
LAURETH-12	OECD 404 Result: Not Irritating Species: Rabbit	
CITRIC ACID	OECD 404 Result: Slightly Irritating Species: Rabbit	
RESORCINOL	OECD 404, (2.5%) Result: Not Irritating Species: Rabbit	
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 439 Result: Not Irritating Species: In vitro	
TOLUENE-2,5-DIAMINE	OECD 439 Result: Not Irritating Species: In vitro	
OLEYL ALCOHOL	Result: Slightly Irritating Species: Rabbit	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Irritation Corrosion - Eye</b>		
RESORCINOL	FHLS Act, (100%) Result: Corrosive Species: Rabbit	
ETHANOLAMINE	OECD 405 Result: Corrosive Species: Rabbit	
LAURETH-12	OECD 405 Result: Corrosive Species: Rabbit	
TOLUENE-2,5-DIAMINE	OECD 405 Result: Corrosive Species: Rabbit	
CITRIC ACID	OECD 405 Result: Irritating Species: Rabbit	
RESORCINOL	OECD 405, (2.5%) Result: Not Irritating Species: Rabbit	
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 438 Result: Irritating Species: In vitro	
AMMONIUM HYDROXIDE	Result: Corrosive	

**Irritation Corrosion - Eye**

OLEYL ALCOHOL

Result: Not Irritating

Species: Rabbit

**Respiratory or skin sensitization****Respiratory sensitization**

Due to partial or complete lack of data the classification is not possible.

**Skin sensitization**

May cause an allergic skin reaction.

**Skin sensitization**

LAURETH-12

OECD 406

Result: Not Sensitizing

Species: Guinea pig

CITRIC ACID

OECD 406

Result: Not Sensitizing

Species: Guinea pig

N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE

OECD 429

Result: Sensitizing

Species: Mouse

RESORCINOL

OECD 429

Result: Sensitizing

Species: Mouse

TOLUENE-2,5-DIAMINE

OECD 429

Result: Sensitizing

Species: Mouse

ETHANOLAMINE

Result: Not Sensitizing

Species: Guinea pig

OLEYL ALCOHOL

Result: Not Sensitizing

Species: Rabbit

AMMONIUM HYDROXIDE

Result: Not Sensitizing

Species: Guinea pig

**Germ cell mutagenicity**

Due to partial or complete lack of data the classification is not possible.

**Mutagenicity**

CITRIC ACID

Result: In vitro and in vivo tests did not show mutagenic effects.

LAURETH-12

Result: In vitro and in vivo tests did not show mutagenic effects.

N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE

Result: In vitro and in vivo tests did not show mutagenic effects.

OLEYL ALCOHOL

Result: In vitro and in vivo tests did not show mutagenic effects.

ETHANOLAMINE

Result: In vitro and in vivo tests did show mutagenic effects

AMMONIUM HYDROXIDE

Result: In vitro tests did not show mutagenic effects

RESORCINOL

Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.

TOLUENE-2,5-DIAMINE

Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.

**Carcinogenicity**

Not classifiable as to carcinogenicity to humans. Due to partial or complete lack of data the classification is not possible.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

RESORCINOL (CAS 108-46-3)

3 Not classifiable as to carcinogenicity to humans.

TOLUENE-2,5-DIAMINE (CAS 95-70-5)

3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity**

Due to partial or complete lack of data the classification is not possible.

**Developmental effects**

CITRIC ACID

&gt; 295 mg/kg bw/d, No effects on development

Result: NOAEL

Species: Rat

LAURETH-12

&gt;= 250 mg/kg bw/d OECD 416

Result: NOAEL

Species: Rat



**Developmental effects**

ETHANOLAMINE	>= 450 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	>= 50 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
OLEYL ALCOHOL	2000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
RESORCINOL	250 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
TOLUENE-2,5-DIAMINE	50 mg/kg bw/d OECD 414, Based on test data for structurally similar materials. Result: NOAEL Species: Rat

**Reproductivity**

LAURETH-12	>= 250 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
TOLUENE-2,5-DIAMINE	>= 45 mg/kg bw/d OECD 416, Based on test data for structurally similar materials. Result: NOAEL Species: Rat
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
OLEYL ALCOHOL	2000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
RESORCINOL	245 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
CITRIC ACID	2500 mg/kg bw/d, No effects on fertility Result: NOAEL Species: Rat
ETHANOLAMINE	300 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat

**Specific target organ toxicity - single exposure**

May cause respiratory irritation.

AMMONIUM HYDROXIDE	Result: Highly Irritating
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**Specific target organ toxicity - repeated exposure**

Due to partial or complete lack of data the classification is not possible.

LAURETH-12	>= 500 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
TOLUENE-2,5-DIAMINE	10 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOLAMINE	150 mg/m3 air OECD 412, Inhalation Result: NOAEC Species: Rat Test Duration: 28 d
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOLAMINE	300 mg/kg bw/d OECD 416, Oral Result: NOAEL Species: Rat

**Specific target organ toxicity - repeated exposure**

CITRIC ACID

4000 mg/kg bw/d, Oral

Result: NOAEL

Species: Rat

Test Duration: 10 d

RESORCINOL

80 mg/kg bw/d OECD 408, Oral

Result: NOAEL

Species: Rat

Test Duration: 90 d

991 mg/m<sup>3</sup>

Result: NOAEC

Species: Rat

Test Duration: 14 d

**Aspiration hazard**

Due to partial or complete lack of data the classification is not possible.

**Chronic effects**

May be harmful if absorbed through skin.

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

**Further information**

May cause allergic respiratory and skin reactions.

**12. Ecological information****Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
AMMONIUM HYDROXIDE (CAS 1336-21-6)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Chlorella vulgaris	2700 mg/l, 18 d
Crustacea	EC50	Daphnia magna	101 mg/l, 48 h ASTM E729-80
Fish	LC50	Oncorhynchus mykiss	0.89 mg/l, 96 h
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.79 mg/l, 21 d
Fish	NOEC	Oncorhynchus mykiss	1.2 mg/l, 61 d OECD 210
CITRIC ACID (CAS 77-92-9)			
<b>Aquatic</b>			
Algae	EC50	Microcystis aeruginosa	80 mg/l, 7 d
Crustacea	LC50	Daphnia magna	1535 mg/l, 24 h
Fish	LC50	Leuciscus idus	440 - 760 mg/l, 96 h OECD 203
Other	EC50	Pseudomonas putida	4235 mg/l, 18 h OECD 209
ETHANOLAMINE (CAS 141-43-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	2.8 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	65 mg/l, 48 h EU C.2
Fish	LC50	Cyprinus carpio	349 mg/l, 96 h EU C.1
Other	EC10	Activated sludge of a predominantly domestic sewage	> 1000 mg/l, 30 min OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.85 mg/l, 21 d OECD 211
Fish	NOEC	Oryzias latipes	1.24 mg/l, 41 d OECD 210

Components		Species	Test Results
LAURETH-12 (CAS 68439-50-9)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.29 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.53 mg/l, 48 h
Fish	LC50	Danio rerio	1.2 mg/l, 96 h EU C.1
Other	EC50	Pseudomonas putida	> 10000 mg/l, 16.9 h DIN 38412, 8
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.77 mg/l, 21 d
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.338 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.381 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	> 235 mg/l, 96 h
Other	EC50	Activated sludge of a predominantly domestic sewage	228 mg/l, 3 h OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.674 mg/l, 21 d OECD 211
OLEYL ALCOHOL (CAS 68002-94-8)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	250 mg/l OECD 201
Fish	LC50	Fish	> 1000 mg/l OECD 203
RESORCINOL (CAS 108-46-3)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	> 97 mg/l, 97 h OECD 201
Crustacea	LC50	Daphnia magna	1 mg/l, 48 h OECD 202
Fish	LC50	Pimephales promelas	26.8 mg/l, 96 h EPA-660/3/75-009
Other		Activated sludge of a predominantly domestic sewage	79 mg/l, 3 h OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	>= 0.172 mg/l, 21 d
Fish	LOEC	Oncorhynchus mykiss	320 mg/l, 60 d
TOLUENE-2,5-DIAMINE (CAS 95-70-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	1.02 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.491 mg/l, 48 h OECD 202
Fish	LC50	Oryzias latipes	0.05 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	3.75 mg/l, 3 h OECD 209
<i>Chronic</i>			
Algae	NOEC	Pseudokirchneriella subcapitata	0.11 mg/l, 72 h OECD 201

#### Persistence and degradability

##### Biodegradability

##### Percent degradation (Aerobic biodegradation)

CITRIC ACID

97 % OECD 301 B  
Test Duration: 28 d

## Biodegradability

### Percent degradation (Aerobic biodegradation)

ETHANOLAMINE	> 90 % OECD 301 A Result: Readily Biodegradable Test Duration: 21 d
LAURETH-12	95 % OECD 301 F Result: Readily Biodegradable Test Duration: 28 d
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	14.3 % OECD 301B Result: Not Readily Biodegradable Test Duration: 28 d
OLEYL ALCOHOL	87 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d
RESORCINOL	66.7 % OECD 301 C Result: Readily Biodegradable Test Duration: 14 d
TOLUENE-2,5-DIAMINE	17 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d

## Bioaccumulative potential

### Partition coefficient n-octanol / water (log Kow)

ETHANOLAMINE	-2.3 OECD 107
LAURETH-12	6.1 OECD 117
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	-2.8
	-2.8 OECD 107
RESORCINOL	0.8
TOLUENE-2,5-DIAMINE	-0.321 OECD 107

### Bioaccumulation

ETHANOLAMINE	Result: Bioaccumulation is unlikely.
TOLUENE-2,5-DIAMINE	Result: Bioaccumulation is unlikely.

## Mobility in soil

No data available.

## Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

### Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

### Local disposal regulations

Dispose in accordance with all applicable regulations.

### Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

### Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

#### FINISHED GOODS

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE), Limited Quantity
Class	8
Packing group	II
Transport hazard class(es)	
Label(s)	Limited Quantity
Packaging exceptions	154
LTD QTY Net Inner Capacity	1.0 L

#### BULK

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)

Class	8
Packing group	II
Transport hazard class(es)	
Label(s)	8
Special provisions	B2, IB2, T11, TP2, TP27
Packaging non bulk	202

#### IATA

#### FINISHED GOODS

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class	8
Packing group	II
Transport hazard class(es)	
Label(s)	Class 8, Limited Quantity
ERG Number	8L
LTD QTY Net Inner Capacity	0.1 L

#### BULK

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class	8
Packing group	II
ERG Number	8L

#### IMDG

#### FINISHED GOODS

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE), Limited Quantity
Class	8
Packing group	II
Environmental Hazards	
Marine pollutant	No.
Transport hazard class(es)	
Label(s)	Limited Quantity
EmS	F-A, S-B
LTD QTY Net Inner Capacity	1.0 L

#### BULK

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class	8
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### Toxic Substances Control Act (TSCA)

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

AMMONIUM HYDROXIDE (CAS 1336-21-6)	Listed.
RESORCINOL (CAS 108-46-3)	Listed.
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No (Exempt)**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
AMMONIUM HYDROXIDE	1336-21-6	< 6
TOLUENE-2,5-DIAMINE	95-70-5	≤ 0.1

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

RESORCINOL (CAS 108-46-3)

Low priority

**16. Other information, including date of preparation or last revision****Issue date** 11-01-2019**Version #** 01**NFPA ratings** Health: 3  
Flammability: 1  
Instability: 0**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.