

SAFETY DATA SHEET

1. Identification

Product identifier MATRIX SOCOLOR ULTRA LIFT PERMANENT HAIR COLOUR - GROUP 1

Other means of identification

SDS number 80-21-0000264

Recommended use Personal care product used for cosmetic effect.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

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

Physical hazards Not classified.

Health hazards

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

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

Precautionary statement

Prevention 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.

Response	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.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	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-PHENYLENEDIAMINE 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

Inhalation	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.
Skin contact	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.
Eye contact	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.
Ingestion	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.
Most important symptoms/effects, acute and delayed	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.
Indication of immediate medical attention and special treatment needed	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.
General information	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

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	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/m ³
		50 ppm
ETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m ³
		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/m ³
		35 ppm
	TWA	18 mg/m ³
		25 ppm
ETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m ³
		6 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

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

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

10. Stability and reactivity

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

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	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.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	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

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

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

Components	Species	Test Results
TOLUENE-2,5-DIAMINE (CAS 95-70-5)		
Oral		
LD50	Rat	102 mg/kg OECD 401
Acute		
Dermal		
LD50	Rabbit	3520 mg/kg
Inhalation		
<i>Dust</i>		
LC50	Rat	0.99 mg/l, 4 h
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Irritation Corrosion - Skin		
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
Serious eye damage/eye irritation	Causes serious eye damage.	
Irritation Corrosion - Eye		
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

> 295 mg/kg bw/d, No effects on development
Result: NOAEL
Species: Rat

LAURETH-12

>= 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

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

ETHANOLAMINE

Test Duration: 90 d
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

ETHANOLAMINE

Test Duration: 90 d
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/m³

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)		
Aquatic		
<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)		
Aquatic		
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)		
Aquatic		
<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)		
Aquatic		
<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)		
Aquatic		
<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)		
Aquatic		
<i>Acute</i>		
Algae	EC50	Algae 250 mg/l OECD 201
Fish	LC50	Fish > 1000 mg/l OECD 203
RESORCINOL (CAS 108-46-3)		
Aquatic		
<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)		
Aquatic		
<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

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