

**1. Identification**

**Product identifier** REDKEN COLOR GELS 10 MINUTE COLOR LACQUERS - GROUP 1  
**Other means of identification**  
**SDS number** 38-21-0000078  
**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**

<b>Physical hazards</b>	Flammable liquids	Category 3
<b>Health hazards</b>	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1A
<b>OSHA defined hazards</b>	Not classified.	

**Label elements**



**Signal word** Danger

**Hazard statement** Flammable liquid and vapor. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage.

**Precautionary statement**  
**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Wash thoroughly after handling. 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. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep cool. 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	%
ETHANOL		64-17-5	8.19
PEG-4 RAPESEEDAMIDE		85536-23-8	8.13
GLYCERYL LAURYL ETHER		9022-75-7	7
DECETH-3		66455-15-0	6.93
LAURETH-5 CARBOXYLIC ACID		27306-90-7	4.5
AMMONIUM HYDROXIDE		1336-21-6	< 4
HEXYLENE GLYCOL		107-41-5	3
TOLUENE-2,5-DIAMINE		95-70-5	< 2
HYDROXYBENZOMORPHOLINE		26021-57-8	< 2
AMMONIUM BICARBONATE		1066-33-7	< 2
ETHANOLAMINE		141-43-5	< 2
2-METHYLRESORCINOL		608-25-3	< 2
M-AMINOPHENOL		591-27-5	< 2
OLEYL ALCOHOL		68002-94-8	1.1
P-PHENYLENEDIAMINE		106-50-3	≤ 2
P-AMINOPHENOL		123-30-8	< 1
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE		54381-16-7	≤ 0.8
6-HYDROXYINDOLE		2380-86-1	≤ 0.4
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	≤ 0.3

\*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>	Move to fresh air. Call a physician if symptoms develop or persist.
<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.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal 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. 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** Take off all contaminated clothing immediately. 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<sub>2</sub>).  
**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.  
**Specific hazards arising from the chemical** Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. 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** In case of fire and/or explosion do not breathe fumes. 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** Flammable liquid and vapor.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). 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. Ventilate closed spaces before entering them. 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** Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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 handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep out of the reach of children. Keep in an area equipped with sprinklers. 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 <sup>3</sup>
		50 ppm
ETHANOL (CAS 64-17-5)	PEL	1900 mg/m <sup>3</sup>

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

Components	Type	Value
ETHANOLAMINE (CAS 141-43-5)	PEL	1000 ppm
		6 mg/m3
P-PHENYLENEDIAMINE (CAS 106-50-3)	PEL	3 ppm
		0.1 mg/m3

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
AMMONIUM HYDROXIDE (CAS 1336-21-6)	STEL	35 ppm	
ETHANOL (CAS 64-17-5)	TWA	25 ppm	
	STEL	1000 ppm	
ETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm	
	TWA	3 ppm	
HEXYLENE GLYCOL (CAS 107-41-5)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction
P-PHENYLENEDIAMINE (CAS 106-50-3)	TWA	0.1 mg/m3	

**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
ETHANOL (CAS 64-17-5)	TWA	25 ppm
		1900 mg/m3
ETHANOLAMINE (CAS 141-43-5)	STEL	1000 ppm
		15 mg/m3
HEXYLENE GLYCOL (CAS 107-41-5)	TWA	6 ppm
		8 mg/m3
	Ceiling	3 ppm
P-PHENYLENEDIAMINE (CAS 106-50-3)		125 mg/m3
	TWA	25 ppm
		0.1 mg/m3

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

Components	Type	Value
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	TWA	0.025 mg/m3
		0.005 ppm

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

**Exposure guidelines**

**US - California OELs: Skin designation**

P-PHENYLENEDIAMINE (CAS 106-50-3) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

P-PHENYLENEDIAMINE (CAS 106-50-3) Skin designation applies.

**US - Tennessee OELs: Skin designation**

P-PHENYLENEDIAMINE (CAS 106-50-3) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

P-PHENYLENEDIAMINE (CAS 106-50-3) Can be absorbed through the skin.

**US WEEL Guides: Skin designation**

TOLUENE-2,5-DIAMINE (CAS 95-70-5) Can be absorbed through the skin.

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

P-PHENYLENEDIAMINE (CAS 106-50-3) Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. 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. Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended.

**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. Use of an impervious apron is recommended.

**Respiratory protection**

Applicable for industrial settings only. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

When using do not smoke. 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**

Characteristic.

**Odor threshold**

Not available.

**pH**

Not available.

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

&gt; 212 °F (&gt; 100 °C)

**Flash point**

105.8 °F (41.0 °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.

<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>Fire point</b>	> 212.00 °F (> 100.00 °C) ISO 2592
<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. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	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.
---	---

### Information on toxicological effects

<b>Acute toxicity</b>	Not known.
-----------------------	------------

Product	Species	Test Results
REDKEN COLOR GELS 10 MINUTE COLOR LACQUERS - GROUP 1		
<b>Acute</b>		
<b>Dermal</b>		
ATEmix		8930 mg/kg
<b>Oral</b>		
ATEmix		1424 mg/kg
		1422 mg/kg
Components	Species	Test Results
2-METHYLRESORCINOL (CAS 608-25-3)		
<b>Acute</b>		
<b>Oral</b>		
LC50	Rat	200 mg/kg

Components	Species	Test Results
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	3600 mg/kg
6-HYDROXYINDOLE (CAS 2380-86-1)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg OECD 402
<b>Inhalation</b>		
<i>Aerosol</i>		
LC50	Rat	> 2000 mg/m3, 4 h OECD 403
<b>Oral</b>		
LD50	Rat	600 - 1200 mg/kg
AMMONIUM BICARBONATE (CAS 1066-33-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg OECD 434
<b>Inhalation</b>		
<i>Aerosol</i>		
LC50	Rat	> 4.74 mg/l, 4.5 EPA OTS 798.1150
<b>Oral</b>		
LD50	Rat	1576 mg/kg OECD 401
AMMONIUM HYDROXIDE (CAS 1336-21-6)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	11590 mg/l, 1 h
<b>Oral</b>		
LD50	Rat	350 mg/kg bw OECD 401
DECETH-3 (CAS 66455-15-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg Based on test data for structurally similar materials.
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg Based on test data for structurally similar materials.
ETHANOL (CAS 64-17-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 20000 mg/kg
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Rat	124.7 mg/l, 4 h OECD 403
<b>Oral</b>		
LD50	Rat	10470 mg/kg OECD 401
ETHANOLAMINE (CAS 141-43-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2504 mg/kg OECD 402

Components	Species	Test Results
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Rat	> 1.3 mg/l, 6 h
<b>Oral</b>		
LD50	Rat	1515 mg/kg OECD 401
GLYCERYL LAURYL ETHER (CAS 9022-75-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/l OECD 402
<b>Oral</b>		
LD50	Rat	> 2000 mg/l OECD 423
HEXYLENE GLYCOL (CAS 107-41-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg OECD 402
<b>Inhalation</b>		
LC50	Rat	> 60 ml/m <sup>3</sup> air, 8 h OECD 403
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg OECD 420
HYDROXYBENZOMORPHOLINE (CAS 26021-57-8)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	1000 - 2000 mg/kg OECD 401
LAURETH-5 CARBOXYLIC ACID (CAS 27306-90-7)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg OECD 401
M-AMINOPHENOL (CAS 591-27-5)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	1162 mg/m <sup>3</sup>
<b>Oral</b>		
LD50	Rat	924 mg/kg
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	-	428 mg/kg
<b>Inhalation</b>		
LC50	-	0.9 mg/l, 4 h
<b>Oral</b>		
LD50	Rat	264 mg/kg
OLEYL ALCOHOL (CAS 68002-94-8)		
<b>Acute</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



Components	Species	Test Results
<b>P-AMINOPHENOL (CAS 123-30-8)</b>		
<u><b>Acute</b></u>		
<b>Dermal</b>		
LD50	Rabbit	> 8000 mg/kg EPA OPTTS 870.1200
<b>Inhalation</b>		
<i>Dust</i>		
LC50	Rat	> 3.42 mg/l, 4 h OECD 403
<b>Oral</b>		
LD50	Rat	671 mg/kg EPA OPPTS 870.1100
<b>PEG-4 RAPESEEDAMIDE (CAS 85536-23-8)</b>		
<u><b>Acute</b></u>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg OECD 402
<b>Inhalation</b>		
LC50	Rat	6 mg/L air, 4 h OECD 436
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg OECD 401
<b>P-PHENYLENEDIAMINE (CAS 106-50-3)</b>		
<u><b>Acute</b></u>		
<b>Dermal</b>		
LD50	Rabbit	> 7940 mg/kg
<b>Inhalation</b>		
<i>Vapor or aerosol</i>		
LC50	Rat	0.92 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	80 - 100 mg/kg bw
<b>TOLUENE-2,5-DIAMINE (CAS 95-70-5)</b>		
<b>Oral</b>		
LD50	Rat	102 mg/kg OECD 401
<u><b>Acute</b></u>		
<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>		
ETHANOLAMINE	OECD 404	Result: Corrosive Species: Rabbit
GLYCERYL LAURYL ETHER	OECD 404	Result: Corrosive Species: Rabbit
AMMONIUM HYDROXIDE	OECD 404	Result: Corrosive Species: Rat
PEG-4 RAPESEEDAMIDE	OECD 404	Result: Irritating Species: Rabbit
6-HYDROXYINDOLE	OECD 404	Result: Not Irritating Species: Rabbit
ETHANOL	OECD 404	Result: Not Irritating Species: Rabbit

**Irritation Corrosion - Skin**

HYDROXYBENZOMORPHOLINE	OECD 404 Result: Not Irritating Species: Rabbit
M-AMINOPHENOL	OECD 404 Result: Not Irritating Species: Rabbit
2-METHYLRESORCINOL	OECD 404 Result: Slightly Irritating Species: Rabbit
LAURETH-5 CARBOXYLIC ACID	OECD 404 Result: Slightly Irritating Species: Rabbit
DECETH-3	OECD 404, Based on test data for structurally similar materials. Result: Slightly Irritating Species: Rabbit
HEXYLENE GLYCOL	OECD 405 Result: Slightly irritating Species: Rabbit
AMMONIUM BICARBONATE	OECD 431 Result: Not Irritating Species: EPISKIN
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
4-AMINO-2-HYDROXYTOLUENE	OECD 439 Result: Not Irritating Species: RhE
P-PHENYLENEDIAMINE	Result: Not Irritating Species: Guinea pig
OLEYL ALCOHOL	Result: Slightly Irritating Species: Rabbit
P-AMINOPHENOL	Result: Slightly Irritating Species: Rabbit

**Serious eye damage/eye irritation** Causes serious eye damage.

**Irritation Corrosion - Eye**

P-AMINOPHENOL	EPA OPPTS 870.2400 Result: Slightly Irritating Species: Rabbit
AMMONIUM BICARBONATE	EPA OTS 798.4500, Based on test data for structurally similar materials. Result: Not Irritating Species: Rabbit
2-METHYLRESORCINOL	OECD 405 Result: Corrosive Species: Rabbit
6-HYDROXYINDOLE	OECD 405 Result: Corrosive Species: Rabbit
ETHANOLAMINE	OECD 405 Result: Corrosive Species: Rabbit
LAURETH-5 CARBOXYLIC ACID	OECD 405 Result: Corrosive Species: Rabbit
TOLUENE-2,5-DIAMINE	OECD 405 Result: Corrosive Species: Rabbit
ETHANOL	OECD 405 Result: Irritating Species: Rabbit

**Irritation Corrosion - Eye**

P-PHENYLENEDIAMINE	OECD 405 Result: Irritating Species: Rabbit
M-AMINOPHENOL	OECD 405 Result: Not Irritating Species: Rabbit
HEXYLENE GLYCOL	OECD 405 Result: Slightly irritating Species: Rabbit
PEG-4 RAPESEEDAMIDE	OECD 405 Result: Slightly Irritating Species: Rabbit
HYDROXYBENZOMORPHOLINE	OECD 405, OECD 405 Result: Irritating Species: Rabbit
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 438 Result: Irritating Species: In vitro
4-AMINO-2-HYDROXYTOLUENE	OECD 492 Result: Not Irritating Species: RhCE
AMMONIUM HYDROXIDE	Result: Corrosive
GLYCERYL LAURYL ETHER	Result: Corrosive
DECETH-3	Result: Corrosive Species: Rabbit
HEXYLENE GLYCOL	Result: Irritating Species: Human
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**

AMMONIUM BICARBONATE	EPA 540/9-82-025, Based on test data for structurally similar materials. Result: Not Sensitizing Species: Guinea pig
ETHANOL	OECD 406 Result: Not Sensitizing Species: Guinea pig
GLYCERYL LAURYL ETHER	OECD 406 Result: Not Sensitizing Species: Guinea pig
HEXYLENE GLYCOL	OECD 406 Result: Not Sensitizing Species: Guinea pig
HYDROXYBENZOMORPHOLINE	OECD 406 Result: Not sensitizing Species: Guinea pig
LAURETH-5 CARBOXYLIC ACID	OECD 406 Result: Not Sensitizing Species: Guinea pig
PEG-4 RAPESEEDAMIDE	OECD 406 Result: Not Sensitizing Species: Guinea pig
P-AMINOPHENOL	OECD 406 Result: Sensitizing Species: Guinea pig
DECETH-3	OECD 406, Based on test data for structurally similar materials. Result: Not Sensitizing Species: Guinea pig
2-METHYLRESORCINOL	OECD 429 Result: Sensitizing Species: Mouse

**Skin sensitization**

4-AMINO-2-HYDROXYTOLUENE	OECD 429 Result: Sensitizing Species: Mouse
6-HYDROXYINDOLE	OECD 429 Result: Sensitizing Species: Mouse
M-AMINOPHENOL	OECD 429 Result: Sensitizing Species: Mouse
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 429 Result: Sensitizing Species: Mouse
P-PHENYLENEDIAMINE	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**

ETHANOL	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.
PEG-4 RAPESEEDAMIDE	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 BICARBONATE	Result: In vitro tests did not show mutagenic effects
AMMONIUM HYDROXIDE	Result: In vitro tests did not show mutagenic effects
DECETH-3	Result: In vitro tests did not show mutagenic effects
GLYCERYL LAURYL ETHER	Result: In vitro tests did not show mutagenic effects
HEXYLENE GLYCOL	Result: In vitro tests did not show mutagenic effects
LAURETH-5 CARBOXYLIC ACID	Result: In vitro tests did not show mutagenic effects
2-METHYLRESORCINOL	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
HYDROXYBENZOMORPHOLINE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
M-AMINOPHENOL	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
P-PHENYLENEDIAMINE	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.
4-AMINO-2-HYDROXYTOLUENE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo tests.
6-HYDROXYINDOLE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo tests.
P-AMINOPHENOL	Result: In vivo tests showed mutagenic effects

**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**

P-PHENYLENEDIAMINE (CAS 106-50-3)	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

Possible reproductive hazard.

### Developmental effects

ETHANOL	> 20000 ppm OECD 414, No effects on development Result: NOAEL Species: Rat
AMMONIUM BICARBONATE	> 340 mg/kg bw/d Result: NOAEL Species: Rat
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
P-PHENYLENEDIAMINE	10 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
M-AMINOPHENOL	100 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
P-AMINOPHENOL	100 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat
4-AMINO-2-HYDROXYTOLUENE	180 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
OLEYL ALCOHOL	2000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
HEXYLENE GLYCOL	300 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
2-METHYLRESORCINOL	400 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
6-HYDROXYINDOLE	50 mg/kg bw/d Result: NOAEL Species: Rat
HYDROXYBENZOMORPHOLINE	500 mg/kg bw/d OECD 414, No effects on development Result: NOAEL Species: Rat
PEG-4 RAPESEEDAMIDE	500 mg/kg bw/d OECD 421, No effects on development Result: NOEL Species: Rat
GLYCERYL LAURYL ETHER	600 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat

### Reproductivity

TOLUENE-2,5-DIAMINE	>= 45 mg/kg bw/d OECD 416, Based on test data for structurally similar materials. Result: NOAEL Species: Rat
P-AMINOPHENOL	100 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat
HEXYLENE GLYCOL	1000 mg/kg bw/d OECD 421 Result: NOEL Species: Rat

**Reproductivity**

N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
4-AMINO-2-HYDROXYTOLUENE	200 mg/kg bw/d OECD 415 Result: NOAEL Species: Rat
OLEYL ALCOHOL	2000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
ETHANOL	20700 mg/kg bw/d OECD 416, No effects on fertility Result: NOAEL Species: Rat
ETHANOLAMINE	300 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
PEG-4 RAPESEEDAMIDE	500 mg/kg bw/d OECD 421, No effects on fertility Result: NOEL Species: Rat
GLYCERYL LAURYL ETHER	600 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat

**Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.

AMMONIUM HYDROXIDE Result: Highly Irritating

**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.

P-AMINOPHENOL	10 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: NOEAL Species: Rat Test Duration: 90 d
DECETH-3	100 mg/kg bw/d OECD 407, Based on test data for structurally similar materials. Result: NOAEL Species: Rat Test Duration: 28 d
2-METHYLRESORCINOL	100 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
6-HYDROXYINDOLE	100 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
HYDROXYBENZOMORPHOLINE	125 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
GLYCERYL LAURYL ETHER	150 mg/kg bw/d OECD 407 Result: NOAEL Species: Rat Test Duration: 28 d
PEG-4 RAPESEEDAMIDE	150 mg/kg bw/d OECD 407, Oral Result: NOAEL Species: Rat
ETHANOLAMINE	150 mg/m <sup>3</sup> air OECD 412, Inhalation Result: NOAEC Species: Rat Test Duration: 28 d

**Specific target organ toxicity - repeated exposure**

P-PHENYLENEDIAMINE	16 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
AMMONIUM BICARBONATE	1695.7 mg/kg bw/d OECD 408, Based on test data for structurally similar materials. Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOL	1730 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat
4-AMINO-2-HYDROXYTOLUENE	180 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
M-AMINOPHENOL	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 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
HEXYLENE GLYCOL	450 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat

**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. The reference to any animal testing for individual constituents mentioned in this document is based on public, third-party data.

**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
2-METHYLRESORCINOL (CAS 608-25-3)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Pseudokirchneriella subcapitata 71 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna 0.605 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio 58.1 mg/l, 96 h
Other	EC50	Activated sludge of a predominantly domestic sewage 131 mg/l, 3 h OECD 209
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Pseudokirchneriella subcapitata 41 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna 2.3 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio 25 mg/l, 96 h OECD 236
Other	EC50	Activated sludge of a predominantly domestic sewage > 150 mg/l, 3 h OECD 209

Components		Species	Test Results
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.24 mg/l, 21 d OECD 211
6-HYDROXYINDOLE (CAS 2380-86-1)			
<i>Acute</i>			
<b>Aquatic</b>			
<i>Acute</i>			
Algae		Desmodesmus subspicatus	9.1 mg/l, 72 h
Crustacea	EC50	Daphnia magna	1.74 mg/l, 48 h
Fish	LC50	Danio rerio	21.7 mg/l, 96 h
Other	IC50	Activated sludge of a predominantly domestic sewage	> 0.9 mg/l, 3 d
AMMONIUM BICARBONATE (CAS 1066-33-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Chlorella vulgaris	1921 mg/l, 5 d
Crustacea	EC50	Daphnia magna	202 mg/l, 48 h
Fish	LC50	Oncorhynchus mykiss	63.4 mg/l, 96 h
Other	EC50	Pseudomonas putida	1895 mg/l, 16 h DIN 38412, Part 8
<i>Chronic</i>			
Algae	EC10	Hyalella azteca	3.7 mg/l, 10 wk
Fish	EC10	Lepomis macrochirus	6.3 mg/l, 30 d
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
DECETH-3 (CAS 66455-15-0)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	1.8 mg/l, 72 h 92/69/EWG
Crustacea	EC50	Daphnia magna	0.39 mg/l, 48 h 92/69/EWG
Fish	LC50	Cyprinus carpio	1.2 mg/l, 96 h EU C.1
Other	EC0	Activated sludge of a predominantly domestic sewage	140 mg/l, 3 h 88/302/EG
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	<= 1 mg/l, 21 d
Fish	NOEC	Lepomis macrochirus	0.16 mg/l, 10 d
ETHANOL (CAS 64-17-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	22200 mg/l, 96 h
Crustacea	EC50	Ceriodaphnia dubia	5012 mg/l, 48 h
Fish	LC50	Pimephales promelas	15300 mg/l, 96 h
Other	IC50	Activated sludge of a predominantly domestic sewage	> 1000 mg/l, 3 h



Components		Species	Test Results
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	9.6 mg/l, 9 d
Fish	NOEC	Danio rerio	250 mg/l, 120 h OECD 212
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
GLYCERYL LAURYL ETHER (CAS 9022-75-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	1.11 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.875 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	1.61 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	31.6 mg/l, 3 h OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.036 mg/l, 21 d OECD 211
Fish	NOEC	Danio rerio	0.086 mg/l, 30 d OECD 210
HEXYLENE GLYCOL (CAS 107-41-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	> 429 mg/l, 72 hours OECD 201
Crustacea	EC50	Daphnia magna	5410 mg/l, 48 hours OECD 202
Fish	LC50	Pimephales promelas	10700 mg/l, 96 hours OECD 203
Other	NOEC	Pseudomonas aeruginosa	200 mg/l, 10 days
LAURETH-5 CARBOXYLIC ACID (CAS 27306-90-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Oncorhynchus mykiss	7.5 mg/l, 96 h
M-AMINOPHENOL (CAS 591-27-5)			
<i>Acute</i>			
Other	IC50	Tetrahymena pyriformis	361 mg/l, 40 h
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	62 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	1.1 mg/l, 48 h DIN 38412, Pt. 11
Fish	LC50	Danio rerio	82.64 mg/l, 96 h OECD 203
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.05 mg/l, 21 d OECD 211
Fish	NOEC	Oryzias latipes	25 mg/l, 25 d OECD 204

Components	Species		Test Results
<b>N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)</b>			
<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
<b>OLEYL ALCOHOL (CAS 68002-94-8)</b>			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	250 mg/l OECD 201
Fish	LC50	Fish	> 1000 mg/l OECD 203
<b>P-AMINOPHENOL (CAS 123-30-8)</b>			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	> 0.253 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.182 mg/l, 48 h OECD 202
Fish	LC50	Oryzias latipes	0.82 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	29.9 mg/l, 3 h OECD 209
<b>PEG-4 RAPESEEDAMIDE (CAS 85536-23-8)</b>			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	410 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	3.8 mg/l, 48 h OECD 202
Fish	LC50	Oncorhynchus mykiss	2.9 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	> 1000 mg/l, 3 h OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.39 mg/l, 21 d OECD 211
<b>P-PHENYLENEDIAMINE (CAS 106-50-3)</b>			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.27 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.33 mg/l, 48 h OECD 202
Fish	LC50	Oncorhynchus mykiss	3.9 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	13.4 mg/l, 3 h OECD 209
<b>TOLUENE-2,5-DIAMINE (CAS 95-70-5)</b>			
<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

Components	Species	Test Results
<i>Chronic</i> Algae	NOEC Pseudokirchneriella subcapitata	0.11 mg/l, 72 h OECD 201

#### Persistence and degradability

##### Biodegradability

##### Percent degradation (Aerobic biodegradation)

2-METHYLRESORCINOL	64 % OECD 301 B Result: Readily Biodegradable Test Duration: 28 d
4-AMINO-2-HYDROXYTOLUENE	0 % OECD 301 B Result: Not Readily Biodegradable Test Duration: 28 d
6-HYDROXYINDOLE DECETH-3	Result: Not Biodegradable 78 % OECD 301 B Result: Readily Biodegradable Test Duration: 28 d
ETHANOL	84 % Result: Readily Biodegradable Test Duration: 20 d
ETHANOLAMINE	> 90 % OECD 301 A Result: Readily Biodegradable Test Duration: 21 d
GLYCERYL LAURYL ETHER	88 % OECD 301 B Result: Readily Biodegradable
HEXYLENE GLYCOL	81 % OECD 301 F Result: Readily biodegradable Test Duration: 28 d
LAURETH-5 CARBOXYLIC ACID	78 % OECD 301 B 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
PEG-4 RAPESEEDAMIDE	96 % OECD 203 Result: Readily Biodegradable Test Duration: 28 d
P-PHENYLENEDIAMINE	28 - 30 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 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)

4-AMINO-2-HYDROXYTOLUENE	-0.53 EU A.8 0.53 OECD 117
6-HYDROXYINDOLE	1.46 EU A.8
ETHANOL	-0.31
ETHANOLAMINE	-2.3 OECD 107
GLYCERYL LAURYL ETHER	3.79 - 4.25
HYDROXYBENZOMORPHOLINE	0.22
M-AMINOPHENOL	0.21
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	-2.8 -2.8 OECD 107
P-AMINOPHENOL	0.25
PEG-4 RAPESEEDAMIDE	5
P-PHENYLENEDIAMINE	-0.25
TOLUENE-2,5-DIAMINE	-0.321 OECD 107
<b>Bioconcentration factor (BCF)</b> P-AMINOPHENOL	10 - 46 OECD 305 C

**Bioaccumulation**  
ETHANOLAMINE  
P-AMINOPHENOL  
TOLUENE-2,5-DIAMINE

Result: Bioaccumulation is unlikely.  
Result: Bioaccumulation is unlikely.  
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.

**Hazardous waste code** This product is ignitable (D001) RCRA hazardous wastes when intended for disposal.

**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** III  
**Transport hazard class(es)**  
**Label(s)** Limited Quantity  
**Packaging exceptions** 154

**BULK**  
**UN number** UN1760  
**UN proper shipping name** CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE), MARINE POLLUTANT (P-PHENYLENEDIAMINE)  
**Class** 8  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**Transport hazard class(es)**  
**Label(s)** 8  
**Special provisions** IB3, T7, TP1, TP28  
**Packaging non bulk** 203

**IATA**  
**FINISHED GOODS**  
**UN number** UN1760  
**UN proper shipping name** CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)  
**Class** 8  
**Packing group** III  
**Transport hazard class(es)**  
**Label(s)** Class 8, Limited Quantity  
**ERG Number** 8L

**BULK**  
**UN number** UN1760  
**UN proper shipping name** CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)  
**Class** 8  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**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** III  
**Environmental Hazards**  
**Marine pollutant** No.  
**Transport hazard class(es)**  
**Label(s)** Limited Quantity  
**EmS** F-A, S-B  
**LTD QTY Net Inner Capacity** 5.00 L

**BULK**

**UN number** UN1760  
**UN proper shipping name** CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE), MARINE POLLUTANT (P-PHENYLENEDIAMINE)  
**Class** 8  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-A, S-B

**General information** IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant. In accordance with international transport regulations products associated with this document have been determined to have a flash point greater than 35°C and fire point greater than 100°C, therefore these materials are exempt from flammable liquid transport regulations.

**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 BICARBONATE (CAS 1066-33-7)	Listed.
AMMONIUM HYDROXIDE (CAS 1336-21-6)	Listed.
ETHANOL (CAS 64-17-5)	Listed.
P-PHENYLENEDIAMINE (CAS 106-50-3)	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 BICARBONATE	1066-33-7	< 2
AMMONIUM HYDROXIDE	1336-21-6	< 4
P-PHENYLENEDIAMINE	106-50-3	≤ 2
TOLUENE-2,5-DIAMINE	95-70-5	< 2

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

P-PHENYLENEDIAMINE (CAS 106-50-3)

**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

ETHANOL (CAS 64-17-5)

Low priority

**16. Other information, including date of preparation or last revision**

Issue date 05-06-2021

Revision date 08-19-2021

Version # 02

NFPA ratings Health: 3  
Flammability: 2  
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.

**Revision information** Product and Company Identification: Product and Company Identification - L'Oreal  
Composition / Information on Ingredients: Ingredients