

SAFETY DATA SHEET

1. Identification

Product identifier MATRIX COLOR SYNC PERMANENT HAIR COLOURS - GROUP 6

Other means of identification

SDS number 00-21-0000253

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 2
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 skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

Precautionary statement

Prevention 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 eye protection/face protection. Wear protective gloves.

Response	If on skin: Wash with plenty of water. 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. Take off contaminated clothing and wash it 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	%
DECETH-3		66455-15-0	9
LAURETH-12		68439-50-9	7
ETHANOLAMINE		141-43-5	< 6
LAURIC ACID		143-07-7	3
TOLUENE-2,5-DIAMINE		95-70-5	< 2
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		155601-30-2	< 2
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	< 2
P-AMINOPHENOL		123-30-8	< 2
RESORCINOL		108-46-3	< 2
SILICA DIMETHYL SILYLATE		68611-44-9	1.2
N,N-BIS(2-HYDROXYETHYL)-p-PH ENYLENEDIAMINE SULFATE		54381-16-7	≤ 2
1-NAPHTHOL		90-15-3	≤ 1
M-AMINOPHENOL		591-27-5	≤ 0.4
6-HYDROXYINDOLE		2380-86-1	< 0.2

*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. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. 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. Get medical attention immediately.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. 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	Alcohol resistant foam. 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. Avoid breathing 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 Use water spray to reduce vapors or divert vapor cloud drift.

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 get in eyes, on skin, or on clothing. Avoid breathing mist/vapors. 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
ETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m ³
		3 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
SILICA DIMETHYL SILYLATE (CAS 68611-44-9)	TWA	0.8 mg/m ³
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value
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
ETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
RESORCINOL (CAS 108-46-3)		6 ppm
	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. Provide eyewash station and safety shower.

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 Characteristic.

Odor threshold Not available.

pH 10

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 skin irritation. 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 Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
MATRIX COLOR SYNC PERMANENT HAIR COLOURS - GROUP 6		
Acute		
Dermal		
ATEmix		18540 mg/kg
Oral		
ATEmix		2613 mg/kg

Components	Species	Test Results
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)		
Acute		
Inhalation		
<i>Aerosol</i>		
LD50	Rat	> 5.24 mg/m ³ , 4 h OECD 403
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
1-NAPHTHOL (CAS 90-15-3)		
Acute		
Dermal		
LD50	Rabbit	>= 880 mg/kg
Inhalation		
<i>Aerosol</i>		
LD50	Rat	> 420 mg/m ³ , 1 Hours
Oral		
LD50	Rat	1000 - 2000 mg/kg
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)		
Acute		
Oral		
LD50	Rat	3600 mg/kg
6-HYDROXYINDOLE (CAS 2380-86-1)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 2000 mg/m ³ , 4 h OECD 403
Oral		
LD50	Rat	600 - 1200 mg/kg
DECETH-3 (CAS 66455-15-0)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg Based on test data for structurally similar materials.
Oral		
LD50	Rat	> 2000 mg/kg Based on test data for structurally similar materials.
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

Components	Species	Test Results
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 1.6 mg/l, 4 h OECD 403
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
LAURIC ACID (CAS 143-07-7)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg OECD 434
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 0.1621 mg/l, 4 h
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
M-AMINOPHENOL (CAS 591-27-5)		
<u>Acute</u>		
Inhalation		
LC50	Rat	1162 mg/m ³
Oral		
LD50	Rat	924 mg/kg
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
<u>Acute</u>		
Oral		
LD50	Rat	264 mg/kg
P-AMINOPHENOL (CAS 123-30-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 8000 mg/kg EPA OPTTS 870.1200
Inhalation		
<i>Dust</i>		
LC50	Rat	> 3.42 mg/l, 4 h OECD 403
Oral		
LD50	Rat	671 mg/kg EPA OPPTS 870.1100
RESORCINOL (CAS 108-46-3)		
<u>Acute</u>		
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
TOLUENE-2,5-DIAMINE (CAS 95-70-5)		
Oral		
LD50	Rat	102 mg/kg OECD 401
<u>Acute</u>		
Dermal		
LD50	Rabbit	3520 mg/kg

Components	Species	Test Results
Inhalation		
<i>Dust</i>		
LC50	Rat	0.99 mg/l, 4 h
Skin corrosion/irritation	Causes skin irritation.	
Irritation Corrosion - Skin		
RESORCINOL		FHLS Act, (100%) Result: Irritating Species: Rabbit
ETHANOLAMINE		OECD 404 Result: Corrosive Species: Rabbit
6-HYDROXYINDOLE		OECD 404 Result: Not Irritating Species: Rabbit
LAURETH-12		OECD 404 Result: Not Irritating Species: Rabbit
M-AMINOPHENOL		OECD 404 Result: Not Irritating Species: Rabbit
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		OECD 404 Result: Slightly Irritating Species: Rabbit
LAURIC ACID		OECD 404 Result: Slightly Irritating Species: Rabbit
RESORCINOL		OECD 404, (2.5%) Result: Not Irritating Species: Rabbit
DECETH-3		OECD 404, Based on test data for structurally similar materials. Result: Slightly 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
4-AMINO-2-HYDROXYTOLUENE		OECD 439 Result: Not Irritating Species: RhE
1-NAPHTHOL		Result: 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
RESORCINOL		FHLS Act, (100%) Result: Corrosive Species: Rabbit
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		OECD 405 Result: Corrosive Species: Rabbit
6-HYDROXYINDOLE		OECD 405 Result: Corrosive Species: Rabbit
ETHANOLAMINE		OECD 405 Result: Corrosive Species: Rabbit

Irritation Corrosion - Eye

LAURETH-12	OECD 405 Result: Corrosive Species: Rabbit
LAURIC ACID	OECD 405 Result: Corrosive Species: Rabbit
TOLUENE-2,5-DIAMINE	OECD 405 Result: Corrosive Species: Rabbit
M-AMINOPHENOL	OECD 405 Result: Not Irritating Species: Rabbit
RESORCINOL	OECD 405, (2.5%) Result: Not Irritating Species: Rabbit
1-NAPHTHOL	OECD 438 Result: Corrosive Species: In vitro
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
DECETH-3	Result: Corrosive 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

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	EU Method B.6 - Cat 1 Result: Sensitizing Species: Guinea pig
LAURETH-12	OECD 406 Result: Not Sensitizing Species: Guinea pig
LAURIC ACID	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
1-NAPHTHOL	OECD 429 Result: Sensitizing Species: Mouse
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
RESORCINOL	OECD 429 Result: Sensitizing Species: Mouse

Skin sensitization

TOLUENE-2,5-DIAMINE

OECD 429

Result: Sensitizing

Species: Mouse

ETHANOLAMINE

Result: Not Sensitizing

Species: Guinea pig

Germ cell mutagenicity

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

Mutagenicity

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.

ETHANOLAMINE

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

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

Result: In vitro tests did not show mutagenic effects

DECETH-3

Result: In vitro tests did not show mutagenic effects

LAURIC ACID

Result: In vitro tests did not show mutagenic effects

M-AMINOPHENOL

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

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.

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.

1-NAPHTHOL

Result: In vitro tests showed varied results. In vivo tests showed negative results.

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

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

LAURETH-12

>= 250 mg/kg bw/d OECD 416

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

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

LAURIC ACID

1000 mg/kg bw/d OECD 422

Result: NOAEL

Species: Rabbit

4-AMINO-2-HYDROXYTOLUENE

180 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

RESORCINOL

250 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

Developmental effects

1-NAPHTHOL	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

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
P-AMINOPHENOL	100 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat
LAURIC ACID	1000 mg/kg bw/d OECD 422 Result: NOAEL
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
RESORCINOL	245 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	300 mg/kg bw/d OECD 415 Species: Rat
ETHANOLAMINE	300 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
1-NAPHTHOL	Result: No Data

Specific target organ toxicity - single exposure

May cause respiratory irritation.

1-NAPHTHOL	Result: 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
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: NOAEL 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
6-HYDROXYINDOLE	100 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d

Specific target organ toxicity - repeated exposure

LAURIC ACID	1000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
1-NAPHTHOL	130 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOLAMINE	150 mg/m ³ air OECD 412, Inhalation Result: NOAEC Species: Rat Test Duration: 28 d
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
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	250 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOLAMINE	300 mg/kg bw/d OECD 416, Oral Result: NOAEL Species: Rat Test Duration: 90 d
RESORCINOL	80 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d 991 mg/m ³ 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. 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
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)		
Aquatic		
<i>Acute</i>		
Algae	Pseudokirchneriella subcapitata	5.33 mg/l, 72 h EU C.3
Crustacea	EC50 Daphnia magna	11.12 mg/l, 48 h TG 202
Fish	LC50 Danio rerio	86.2 mg/l, 96 h EU C.1
1-NAPHTHOL (CAS 90-15-3)		
Aquatic		
<i>Acute</i>		
Algae	EC50 Pseudokirchneriella subcapitata	> 2.18 mg/l, 72 h OECD 201

Components		Species	Test Results
Crustacea	EC50	Daphnia magna	2.51 mg/l, 48 h
Fish	LC50	Pimephales promelas	4.24 mg/l, 96 h
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.25 mg/l, 21 d OECD 211
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)			
Aquatic			
<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
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.24 mg/l, 21 d OECD 211
6-HYDROXYINDOLE (CAS 2380-86-1)			
<i>Acute</i>			
Aquatic			
<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
DECETH-3 (CAS 66455-15-0)			
Aquatic			
<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
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
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

Components		Species	Test Results
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
LAURIC ACID (CAS 143-07-7)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	> 7.6 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	3.6 mg/l, 48 h OECD 202
Fish	LC50	Oryzias latipes	5 mg/l, 96 h OECD 203
Other	EC10	Pseudomonas putida	> 1000 mg/l, 30 min OECD 209
M-AMINOPHENOL (CAS 591-27-5)			
<i>Acute</i>			
Other	IC50	Tetrahymena pyriformis	361 mg/l, 40 h
Aquatic			
<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
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
P-AMINOPHENOL (CAS 123-30-8)			
Aquatic			
<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
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

Components		Species	Test Results
<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)

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	33.3 % EU C.4-E Result: Not readily biodegradable
1-NAPHTHOL	> 77.8 % 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
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
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)

1-NAPHTHOL	2.836 OECD 107
4-AMINO-2-HYDROXYTOLUENE	-0.53 EU A.8 0.53 OECD 117
6-HYDROXYINDOLE	1.46 EU A.8
ETHANOLAMINE	-2.3 OECD 107
LAURETH-12	6.1 OECD 117
LAURIC ACID	4.2
M-AMINOPHENOL	0.21
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	-2.8 -2.8 OECD 107
P-AMINOPHENOL	0.25
RESORCINOL	0.8
TOLUENE-2,5-DIAMINE	-0.321 OECD 107

Bioconcentration factor (BCF)

P-AMINOPHENOL

10 - 46 OECD 305 C

Bioaccumulation

1-NAPHTHOL

Result: Bioaccumulation is unlikely

ETHANOLAMINE

Result: Bioaccumulation is unlikely.

P-AMINOPHENOL

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**

Not regulated as dangerous goods.

BULK

Not regulated as dangerous goods.

IATA**FINISHED GOODS**

Not regulated as dangerous goods.

BULK

Not regulated as dangerous goods.

IMDG**FINISHED GOODS**

Not regulated as dangerous goods.

BULK

Not regulated as dangerous goods.

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)

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.
TOLUENE-2,5-DIAMINE	95-70-5	< 2

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** 09-19-2019**Revision date** 11-19-2019**Version #** 02**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.**Revision information** Product and Company Identification: Product and Company Identification - L'Oreal
Hazard(s) identification: Hazard statement
Hazard(s) identification: Response
Hazard(s) identification: GHS Symbols
Hazard(s) identification: Supplemental information
Composition / Information on Ingredients: Ingredients
Accidental release measures: Methods and materials for containment and cleaning up
Toxicological information: Further information
Ecological information: Ecotoxicity
Transport Information: Material Transportation Information
Transport information: General information
GHS: Classification