

1. Identification

Product identifier	L'ORÉAL PROFESSIONNEL DIA LIGHT SEMI PERMANENT HAIR COLOUR – GROUP 6
Other means of identification	
SDS number	00-21-0000174
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	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1A
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement May cause an allergic skin reaction. Causes serious eye damage.

Precautionary statement

Prevention

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 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 away from incompatible materials.

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	%
LAURETH-2		68439-50-9	8
TRIDECETH-2 CARBOXAMIDE MEA		107628-04-6	4
PEG-4 RAPESEEDAMIDE		85536-23-8	3.7
GLYCERIN		56-81-5	3
LAURETH-12		68439-50-9	3
TOLUENE-2,5-DIAMINE		95-70-5	< 2
M-AMINOPHENOL		591-27-5	< 2
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		155601-30-2	1.25
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	< 2
P-AMINOPHENOL		123-30-8	< 0.8
RESORCINOL		108-46-3	0.7
N,N-BIS(2-HYDROXYETHYL)-p-PH ENYLENEDIAMINE SULFATE		54381-16-7	< 0.4
6-HYDROXYINDOLE		2380-86-1	< 0.3
1-NAPHTHOL		90-15-3	< 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	Move to fresh air. Call a physician if symptoms develop or persist.
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.
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 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	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. 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

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.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not get this material in contact with eyes. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and 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 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	Form
GLYCERIN (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value
RESORCINOL (CAS 108-46-3)	STEL	20 ppm
	TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
RESORCINOL (CAS 108-46-3)	STEL	90 mg/m3
		20 ppm
	TWA	45 mg/m3 10 ppm

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 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.

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. In case of insufficient ventilation, wear suitable respiratory equipment.
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	6.4 - 6.8
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	
Density	0.96 - 1.02 g/cm ³
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 oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
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 an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
---------	---------	--------------

L'ORÉAL PROFESSIONNEL DIA LIGHT SEMI PERMANENT HAIR COLOUR – GROUP 6

Acute

Dermal

ATEmix 49330 mg/kg

Oral

ATEmix 4613 mg/kg

Components	Species	Test Results
------------	---------	--------------

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)

Acute

Inhalation

Aerosol

LD50 Rat > 5.24 mg/m³, 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

Aerosol

LD50 Rat > 420 mg/m³, 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

Components	Species	Test Results
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 2000 mg/m3, 4 h OECD 403
Oral		
LD50	Rat	600 - 1200 mg/kg
GLYCERIN (CAS 56-81-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 18700 mg/kg bw
Inhalation		
LC50	Rat	> 570 mg/L air, 1 h
Oral		
LD50	Rat	27200 mg/kg bw
LAURETH-12 (CAS 68439-50-9)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
	Rat	> 2000 mg/kg OECD 402
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 1.6 mg/l, 4 h OECD 403
Oral		
LD50	Rat	> 1000 mg/kg
LAURETH-2 (CAS 68439-50-9)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
M-AMINOPHENOL (CAS 591-27-5)		
<u>Acute</u>		
Inhalation		
LC50	Rat	1162 mg/m3
Oral		
LD50	Rat	924 mg/kg
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
<u>Acute</u>		
Dermal		
LD50	-	428 mg/kg
Inhalation		
LC50	-	0.9 mg/l, 4 h
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

Components	Species	Test Results
Oral		
LD50	Rat	671 mg/kg EPA OPPTS 870.1100
PEG-4 RAPESEEDAMIDE (CAS 85536-23-8)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
LC50	Rat	6 mg/L air, 4 h OECD 436
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
RESORCINOL (CAS 108-46-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	2830 mg/kg FHSL Act
Inhalation		
<i>Aerosol</i>		
LC0	Rat	> 7800 mg/m³, 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
Inhalation		
<i>Dust</i>		
LC50	Rat	0.99 mg/l, 4 h
TRIDECETH-2 CARBOXAMIDE MEA (CAS 107628-04-6)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
Skin corrosion/irritation	Due to partial or complete lack of data the classification is not possible. No adverse effects due to skin contact are expected.	
Irritation Corrosion - Skin		
RESORCINOL	FHLS Act, (100%) Result: Irritating Species: Rabbit	
PEG-4 RAPESEEDAMIDE	OECD 404 Result: Irritating Species: Rabbit	
TRIDECETH-2 CARBOXAMIDE MEA	OECD 404 Result: Irritating Species: Rabbit	
6-HYDROXYINDOLE	OECD 404 Result: Not Irritating Species: Rabbit	
LAURETH-12	OECD 404 Result: Not Irritating Species: Rabbit	
LAURETH-2	OECD 404 Result: Not Irritating Species: Rabbit	

Irritation Corrosion - Skin

M-AMINOPHENOL

OECD 404

Result: Not Irritating

Species: Rabbit

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE
SULFATE

OECD 404

Result: Slightly Irritating

Species: Rabbit

RESORCINOL

OECD 404, (2.5%)

Result: Not Irritating

Species: Rabbit

N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMI
NE 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

GLYCERIN

Result: Not 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

LAURETH-12

OECD 405

Result: Corrosive

Species: Rabbit

TOLUENE-2,5-DIAMINE

OECD 405

Result: Corrosive

Species: Rabbit

TRIDECETH-2 CARBOXAMIDE MEA

OECD 405

Result: Irritating

Species: Rabbit

M-AMINOPHENOL

OECD 405

Result: Not Irritating

Species: Rabbit

LAURETH-2

OECD 405

Result: Severely Irritating

Species: Rabbit

PEG-4 RAPESEEDAMIDE

OECD 405

Result: Slightly 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-PHENYLENEDIAMI
NE SULFATE

OECD 438

Result: Irritating

Species: In vitro

Irritation Corrosion - Eye

4-AMINO-2-HYDROXYTOLUENE

OECD 492

Result: Not Irritating

Species: RhCE

GLYCERIN

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**

GLYCERIN

167 mg/m³ air OECD 413, Inhalation

Result: NOAEL

Species: Rat

Test Duration: 90 d

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

LAURETH-2

OECD 406

Result: Not Sensitizing

Species: Guinea pig

PEG-4 RAPESEEDAMIDE

OECD 406

Result: Not Sensitizing

Species: Guinea pig

TRIDECETH-2 CARBOXAMIDE MEA

OECD 406

Result: Not Sensitizing

Species: Guinea pig

P-AMINOPHENOL

OECD 406

Result: 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-PHENYLENEDIAMI
NE SULFATE

OECD 429

Result: Sensitizing

Species: Mouse

RESORCINOL

OECD 429

Result: Sensitizing

Species: Mouse

TOLUENE-2,5-DIAMINE

OECD 429

Result: Sensitizing

Species: Mouse

GLYCERIN

Result: Not Sensitizing

Species: Guinea pig

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.**Mutagenicity**

GLYCERIN

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.

LAURETH-2

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

N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMI
NE SULFATE

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

Mutagenicity

PEG-4 RAPESEEDAMIDE

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

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE

Result: In vitro tests did not show mutagenic effects

TRIDECETH-2 CARBOXAMIDE MEA

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

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

TRIDECETH-2 CARBOXAMIDE MEA

1000 mg/kg bw/d OECD 422

Result: NOAEL

Species: Rat

GLYCERIN

1310 mg/kg bw/d, No effects on development

Result: NOAEL

Species: Rat

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

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

Developmental effects

PEG-4 RAPESEEDAMIDE

500 mg/kg bw/d OECD 421, No effects on development

Result: NOEL

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

LAURETH-2

1000 mg/kg bw/d OECD 421

Result: NOAEL

Species: Rat

TRIDECETH-2 CARBOXAMIDE MEA

1000 mg/kg bw/d OECD 421

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

4-AMINO-2-HYDROXYTOLUENE

200 mg/kg bw/d OECD 415

Result: NOAEL

Species: Rat

GLYCERIN

2000 mg/kg bw/d, No effects on fertility

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

PEG-4 RAPESEEDAMIDE

500 mg/kg bw/d OECD 421, No effects on fertility

Result: NOEL

Species: Rat

1-NAPHTHOL

Result: No Data

Specific target organ toxicity - single exposure

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

1-NAPHTHOL

Result: 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

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

LAURETH-2

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

1-NAPHTHOL	130 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
PEG-4 RAPESEEDAMIDE	150 mg/kg bw/d OECD 407, Oral Result: NOAEL Species: Rat Test Duration: 90 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
TRIDECETH-2 CARBOXAMIDE MEA	300 mg/kg bw/d OECD 408, 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
GLYCERIN	8000 mg/kg bw/d, Oral Result: NOAEL Species: Rat Test Duration: 2 yr
RESORCINOL	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.

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
Crustacea	EC50 Daphnia magna	2.51 mg/l, 48 h
Fish	LC50 Pimephales promelas	4.24 mg/l, 96 h

Components		Species	Test Results
<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
GLYCERIN (CAS 56-81-5)			
Aquatic			
<i>Acute</i>			
Algae	EC0	Scenedesmus quadricauda	> 10000 mg/l, 192 h
Crustacea	EC50	Daphnia magna	1955 mg/l, 48 h
Fish	LC50	Oncorhynchus mykiss	54000 mg/l, 96 h
Other	NOEC	Pseudomonas putida	> 10000 mg/l, 16 h
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
LAURETH-2 (CAS 68439-50-9)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.32 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.53 mg/l, 48 h
Fish	LC50	Leuciscus idus	2.1 mg/l, 48 h OECD 203
Other	EC50	Pseudomonas putida	> 10000 mg/l, 30 min OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.77 mg/l, 21 d
Fish	NOEC	Lepomis macrochirus	0.16 mg/l, 10 d

Components		Species	Test Results
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
PEG-4 RAPESEEDAMIDE (CAS 85536-23-8)			
Aquatic			
<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
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

Components	Species		Test Results
TOLUENE-2,5-DIAMINE (CAS 95-70-5)			
Aquatic			
Acute			
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
Chronic			
Algae	NOEC	Pseudokirchneriella subcapitata	0.11 mg/l, 72 h OECD 201
TRIDECETH-2 CARBOXAMIDE MEA (CAS 107628-04-6)			
Aquatic			
Acute			
Algae	EC50	Desmodesmus subspicatus	> 2 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.32 mg/l, 48 h OECD 202
Fish	LC50	Oncorhynchus mykiss	0.93 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	> 1000 mg/l, 3 h OECD 209
Chronic			
Algae	NOEC	Desmodesmus subspicatus	0.2 mg/l, 72 OECD 201
Crustacea	NOEC	Daphnia magna	0.022 mg/l, 21 d OECD 211
Fish	NOEC	Oncorhynchus mykiss	0.15 mg/l, 28 d OECD 215

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 GLYCERIN	Result: Not Biodegradable OECD 301 Result: Readily Biodegradable
LAURETH-12	95 % OECD 301 F Result: Readily Biodegradable Test Duration: 28 d
LAURETH-2	78 - 79 % OECD 301 D 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
PEG-4 RAPESEEDAMIDE	96 % OECD 203 Result: 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
TRIDECETH-2 CARBOXAMIDE MEA	94 % OECD 301 B Result: Readily Biodegradable

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
GLYCERIN	-1.76
LAURETH-12	6.1 OECD 117
M-AMINOPHENOL	0.21
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE	-2.8
SULFATE	-2.8 OECD 107

P-AMINOPHENOL	0.25
PEG-4 RAPESEEDAMIDE	5
RESORCINOL	0.8
TOLUENE-2,5-DIAMINE	-0.321 OECD 107
TRIDECETH-2 CARBOXAMIDE MEA	3.8

Bioconcentration factor (BCF)

P-AMINOPHENOL	10 - 46 OECD 305 C
---------------	--------------------

Bioaccumulation

1-NAPHTHOL	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**

GLYCERIN (CAS 56-81-5)

Other Flavoring Substances with OSHA PEL's

RESORCINOL (CAS 108-46-3)

Low priority

16. Other information, including date of preparation or last revision**Issue date** 01-30-2019**Revision date** 02-12-2021**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 This document has undergone significant changes and should be reviewed in its entirety.