

1. Identification

Product identifier L'ORÉAL PROFESSIONNEL DIA RICHESSE SEMI PERMANENT HAIR COLOUR - GROUP 1

Other means of identification

SDS number 80-21-0000271

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 1C
Serious eye damage/eye irritation	Category 1
Sensitization, skin	Category 1A
Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Specific target organ toxicity, repeated exposure	Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Do not breathe mist/vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

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

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
DECETH-3		66455-15-0	9
ETHANOLAMINE		141-43-5	< 8
LAURETH-12		68439-50-9	7
LAURIC ACID		143-07-7	3
TOLUENE-2,5-DIAMINE		95-70-5	< 3
2,4-DIAMINOPHENOXYETHANOL HCL		66422-95-5	< 3
5-AMINO-6-CHLORO-O-CRESOL		84540-50-1	< 2
RESORCINOL		108-46-3	< 2
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		155601-30-2	< 2
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	< 2
2-METHYL-5-HYDROXYETHYLAMI NOPHENOL		55302-96-0	< 2
SODIUM METABISULFITE		7681-57-4	1.4
SILICA DIMETHYL SILYLATE		68611-44-9	1.2
2-AMINO-3-HYDROXYPYRIDINE		16867-03-1	< 2
SODIUM METASILICATE		6834-92-0	≤ 2
P-AMINOPHENOL		123-30-8	< 1
M-AMINOPHENOL		591-27-5	< 0.9
1-NAPHTHOL		90-15-3	< 0.5
N,N-BIS(2-HYDROXYETHYL)-p-PH ENYLENEDIAMINE SULFATE		54381-16-7	< 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. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Alcohol resistant foam. Powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Methods and materials for containment and cleaning up

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

Environmental precautions

7. Handling and storage

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection

Occupational exposure limits

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

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

Components	Type	Value
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
SODIUM METABISULFITE (CAS 7681-57-4)	TWA	5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
ETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3
		6 ppm
	TWA	8 mg/m3
RESORCINOL (CAS 108-46-3)		3 ppm
	STEL	90 mg/m3
		20 ppm
SODIUM METABISULFITE (CAS 7681-57-4)		45 mg/m3
	TWA	10 ppm
		5 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 WEEL Guides: Skin designation**

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

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

Individual protection measures, such as personal protective equipment

Eye/face protection Applicable for industrial settings only. Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

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

Other Applicable for industrial settings only. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

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.
Form	Cream.
Color	Not available.
Odor	Characteristic.
Odor threshold	Not available.
pH	10 - 11
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/cm³
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.

Incompatible materials Strong acids. Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact	Causes severe skin burns. May cause an allergic skin reaction. Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
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L'ORÉAL PROFESSIONNEL DIA RICHESSE SEMI PERMANENT HAIR COLOUR - GROUP 1

Acute

Dermal

ATEmix 16870 mg/kg

Oral

ATEmix 2348 mg/kg

Components	Species	Test Results
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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

2,4-DIAMINOPHENOXYETHANOL HCL (CAS 66422-95-5)

Acute

Oral

LD50 Rat 1000 mg/kg OECD 401

2-AMINO-3-HYDROXYPYRIDINE (CAS 16867-03-1)

Acute

Oral

LD50 Rat 500 mg/kg bw OECD 423

2-METHYL-5-HYDROXYETHYLAMINOPHENOL (CAS 55302-96-0)

Acute

Dermal

LD50 Rat > 2000 mg/kg OECD 402

Oral

LD50 Rat > 2000 mg/kg OECD 420

Components	Species	Test Results
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)		
<u>Acute</u>		
Oral		
LD50	Rat	3600 mg/kg
5-AMINO-6-CHLORO-O-CRESOL (CAS 84540-50-1)		
<u>Acute</u>		
Oral		
LD50	Rat	1360 mg/kg bw
6-HYDROXYINDOLE (CAS 2380-86-1)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 2000 mg/m3, 4 h OECD 403
Oral		
LD50	Rat	600 - 1200 mg/kg
DECETH-3 (CAS 66455-15-0)		
<u>Acute</u>		
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)		
<u>Acute</u>		
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)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 1.6 mg/l, 4 h OECD 403
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
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

Components	Species	Test Results
Oral		
LD50	Rat	> 5000 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>		
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/m³, 1 h FHSL Act
Oral		
LD50	Rat	510 mg/kg OECD 401
SODIUM METABISULFITE (CAS 7681-57-4)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
<i>Dust</i>		
LC50	Rat	> 5.5 mg/l, 4 h OECD 403
Oral		
LD50	Rat	1540 mg/kg OECD 401
SODIUM METASILICATE (CAS 6834-92-0)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 5000 mg/kg Based on test data for structurally similar materials.
Inhalation		
LC50	Rat	> 2.06 mg/l, 4.4 h Based on test data for structurally similar materials.
Oral		
LD50	Rat	1152 mg/kg

Components	Species	Test Results
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
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Irritation Corrosion - Skin		
RESORCINOL	FHLS Act, (100%) Result: Irritating Species: Rabbit	
ETHANOLAMINE	OECD 404 Result: Corrosive Species: Rabbit	
SODIUM METASILICATE	OECD 404 Result: Corrosive Species: Rabbit	
2,4-DIAMINOPHENOXYETHANOL HCL	OECD 404 Result: Not Irritating Species: Rabbit	
2-AMINO-3-HYDROXYPYRIDINE	OECD 404 Result: Not Irritating Species: Rabbit	
2-METHYL-5-HYDROXYETHYLAMINOPHENOL	OECD 404 Result: Not Irritating Species: Rabbit	
5-AMINO-6-CHLORO-O-CRESOL	OECD 404 Result: Not Irritating 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	
SODIUM METABISULFITE	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	

Irritation Corrosion - Skin

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

SODIUM METASILICATE

IRE

Result: Corrosive

Species: In vitro

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

LAURETH-12

OECD 405

Result: Corrosive

Species: Rabbit

LAURIC ACID

OECD 405

Result: Corrosive

Species: Rabbit

SODIUM METABISULFITE

OECD 405

Result: Corrosive

Species: Rabbit

TOLUENE-2,5-DIAMINE

OECD 405

Result: Corrosive

Species: Rabbit

2,4-DIAMINOPHENOXYETHANOL HCL

OECD 405

Result: Irritating

Species: Rabbit

2-AMINO-3-HYDROXYPYRIDINE

OECD 405

Result: Irritating

Species: Rabbit

2-METHYL-5-HYDROXYETHYLAMINOPHENOL

OECD 405

Result: Irritating

Species: Rabbit

5-AMINO-6-CHLORO-O-CRESOL

OECD 405

Result: Irritating

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

Irritation Corrosion - Eye

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

2-AMINO-3-HYDROXYPYRIDINE

OECD 429

Result: Not Sensitizing

Species: Mouse

2-METHYL-5-HYDROXYETHYLAMINOPHENOL

OECD 429

Result: Not Sensitizing

Species: Mouse

5-AMINO-6-CHLORO-O-CRESOL

OECD 429

Result: Not Sensitizing

Species: Mouse

SODIUM METABISULFITE

OECD 429

Result: Not Sensitizing

Species: Mouse

SODIUM METASILICATE

OECD 429

Result: Not Sensitizing

Species: Mouse

1-NAPHTHOL

OECD 429

Result: Sensitizing

Species: Mouse

2,4-DIAMINOPHENOXYETHANOL HCL

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

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.

SODIUM METABISULFITE

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

SODIUM METASILICATE

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

2,4-DIAMINOPHENOXYETHANOL HCL

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

2-AMINO-3-HYDROXYPYRIDINE

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

2-METHYL-5-HYDROXYETHYLAMINOPHENOL

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.

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.

5-AMINO-6-CHLORO-O-CRESOL

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.

SODIUM METABISULFITE (CAS 7681-57-4)

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

SODIUM METABISULFITE

> 123 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

SODIUM METASILICATE

> 200 mg/kg bw/d

Result: NOAEL

Species: Mouse

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

Developmental effects

P-AMINOPHENOL	100 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat
2-METHYL-5-HYDROXYETHYLAMINOPHENOL	1000 mg/kg bw/d OECD 414 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
2,4-DIAMINOPHENOXYETHANOL HCL	20 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
RESORCINOL	250 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
5-AMINO-6-CHLORO-O-CRESOL	270 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

Reproductivity

SODIUM METASILICATE	> 159 mg/kg bw/d Result: NOAEL Species: Rat
SODIUM METABISULFITE	> 955 mg/kg bw/d Result: NOAEL Species: Rat
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 - May cause respiratory irritation.

single exposure

1-NAPHTHOL	Result: Irritating
2-AMINO-3-HYDROXYPYRIDINE	Result: Irritating
SODIUM METASILICATE	Result: Irritating

Specific target organ toxicity - May cause damage to organs through prolonged or repeated exposure.

repeated exposure

SODIUM METASILICATE	> 227 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
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
5-AMINO-6-CHLORO-O-CRESOL	100 mg/kg bw/d OECD 408, Oral Result: LOAEL Species: Rat Test Duration: 90 d
6-HYDROXYINDOLE	100 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
LAURIC ACID	1000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat Test Duration: 90 d
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
2,4-DIAMINOPHENOXYETHANOL HCL	20 mg/kg bw/d OECD 408 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
2-METHYL-5-HYDROXYETHYLAMINOPHENOL	220 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d

Specific target organ toxicity - repeated exposure

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	250 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
2-AMINO-3-HYDROXYPYRIDINE	30 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
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 cause damage to organs through prolonged or repeated exposure. 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
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
2,4-DIAMINOPHENOXYETHANOL HCL (CAS 66422-95-5)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	36.5 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	7.4 mg/l, 48 h OECD 202
2-AMINO-3-HYDROXYPYRIDINE (CAS 16867-03-1)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	1.23 mg/l, 72 h OECD 201

Components		Species	Test Results
Crustacea	EC50	Daphnia magna	24.6 mg/l, 48 h OECD 202
2-METHYL-5-HYDROXYETHYLAMINOPHENOL (CAS 55302-96-0)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	15.9 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	3.04 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	> 100 mg/l, 96 h OECD 236
Other	EC50	Activated sludge of a predominantly domestic sewage	603 mg/l, 3 h OECD 209
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

Components		Species	Test Results
LAURETH-12 (CAS 68439-50-9)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.29 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.53 mg/l, 48 h
Fish	LC50	Danio rerio	1.2 mg/l, 96 h EU C.1
Other	EC50	Pseudomonas putida	> 10000 mg/l, 16.9 h DIN 38412, 8
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.77 mg/l, 21 d
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

Components		Species	Test Results
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

SODIUM METABISULFITE (CAS 7681-57-4)

Aquatic

Acute

Crustacea	EC50	Daphnia magna	89 mg/l, 48 h OECD 202
Fish	LC50	Leuciscus idus	316 mg/l, 96 h DIN 38412-15

Chronic

Crustacea	NOEC	Daphnia magna	> 10 mg/l, 21 d OECD 211
Fish	NOEC	Danio rerio	>= 316 mg/l, 34 d OECD 210

SODIUM METASILICATE (CAS 6834-92-0)

Aquatic

Acute

Algae	EC50	Pseudokirchneriella subcapitata	> 207 mg/l, 72 h DIN 38412, Pt. 9
Crustacea	EC50	Daphnia magna	> 1700 mg/l, 48 h EU C.2
Fish	LC50	Danio rerio	> 210 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	100 mg/l, 3 h OECD 209

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
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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
2-AMINO-3-HYDROXYPYRIDINE	14 % OECD 301 B Result: Not Readily Biodegradable Test Duration: 28 d
2-METHYL-5-HYDROXYETHYLAMINOPHENOL	2 - 3 % OECD 301 B Result: Not Readily Biodegradable
4-AMINO-2-HYDROXYTOLUENE	0 % OECD 301 B Result: Not Readily Biodegradable Test Duration: 28 d
6-HYDROXYINDOLE	Result: Not Biodegradable
DECETH-3	78 % OECD 301 B Result: Readily Biodegradable Test Duration: 28 d

Biodegradability

Percent degradation (Aerobic biodegradation)

ETHANOLAMINE

> 90 % OECD 301 A

Result: Readily Biodegradable

Test Duration: 21 d

LAURETH-12

95 % OECD 301 F

Result: Readily Biodegradable

Test Duration: 28 d

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

14.3 % OECD 301B

Result: Not Readily Biodegradable

Test Duration: 28 d

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

2-AMINO-3-HYDROXYPYRIDINE

0.05

2-METHYL-5-HYDROXYETHYLAMINOPHENOL

0.772 OECD 117

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

2-AMINO-3-HYDROXYPYRIDINE

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

UN number

UN1760

UN proper shipping name	CORROSIVE LIQUID, N.O.S. (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. (ETHANOLAMINE)
Class	8
Packing group	III
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. (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. (ETHANOLAMINE)
Class	8
Packing group	III
ERG Number	8L

IMDG

FINISHED GOODS

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

15. Regulatory information

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

Toxic Substances Control Act (TSCA)

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

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	< 3

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 12-11-2019

Version # 01

NFPA ratings Health: 3
Flammability: 1
Instability: 0

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