

SAFETY DATA SHEET

1. Identification

Product identifier MATRIX SOCOLOR EXPRESS HAIR COLOR - GROUP 1

Other means of identification

SDS number 80-21-0000452

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 Acute toxicity, oral Category 4
Skin corrosion/irritation Category 1B
Serious eye damage/eye irritation Category 1
Sensitization, skin Category 1A

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage.

Precautionary statement

Prevention

Do not breathe mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. 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 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
AMMONIUM HYDROXIDE		1336-21-6	3.89
LAURIC ACID		143-07-7	3
TOLUENE-2,5-DIAMINE		95-70-5	< 2
ETHANOLAMINE		141-43-5	1.35
SILICA DIMETHYL SILYLATE		68611-44-9	1.2
HYDROXYBENZOMORPHOLINE		26021-57-8	≤ 2
P-PHENYLENEDIAMINE		106-50-3	≤ 2
M-AMINOPHENOL		591-27-5	< 0.7
N,N-BIS(2-HYDROXYETHYL)-p-PH ENYLENEDIAMINE SULFATE		54381-16-7	< 0.4
P-AMINOPHENOL		123-30-8	< 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. 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.
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 warm. 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. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

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

Specific methods

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

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

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

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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 breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection**Occupational exposure limits**

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

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

Components	Type	Value
AMMONIUM HYDROXIDE (CAS 1336-21-6)	PEL	35 mg/m3
		50 ppm
ETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m3
		3 ppm
P-PHENYLENEDIAMINE (CAS 106-50-3)	PEL	0.1 mg/m3

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

Components	Type	Value
SILICA DIMETHYL SILYLATE (CAS 68611-44-9)	TWA	0.8 mg/m3
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value
AMMONIUM HYDROXIDE (CAS 1336-21-6)	STEL	35 ppm
	TWA	25 ppm
ETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm
P-PHENYLENEDIAMINE (CAS 106-50-3)	TWA	0.1 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
AMMONIUM HYDROXIDE (CAS 1336-21-6)	STEL	27 mg/m3
		35 ppm
	TWA	18 mg/m3
		25 ppm
ETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3
		6 ppm
	TWA	8 mg/m3
		3 ppm
P-PHENYLENEDIAMINE (CAS 106-50-3)	TWA	0.1 mg/m3

US. Workplace Environmental Exposure Level (WEEL) Guides

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

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

Exposure guidelines**US - California OELs: Skin designation**

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

US - Minnesota Haz Subs: Skin designation applies

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

US - Tennessee OELs: Skin designation

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

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

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

US WEEL Guides: Skin designation

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

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

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

Appropriate engineering controls

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

Individual protection measures, such as personal protective equipment**Eye/face protection**

Applicable for industrial settings only. Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended.

Skin protection**Hand protection**

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

Other

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

Respiratory protection

Applicable for industrial settings only. In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep away from food and drink. 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	Not available.
Odor	Characteristic.
Odor threshold	Not available.
pH	9.8 - 10.2
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 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	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. Harmful if swallowed.

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.

Information on toxicological effects**Acute toxicity**

Not known. Harmful if swallowed.

Product	Species	Test Results
MATRIX SOCOLOR EXPRESS HAIR COLOR - GROUP 1		
<u>Acute</u>		
Dermal		
ATEmix		10480 mg/kg
Oral		
ATEmix		1644 mg/kg
Components	Species	Test Results
AMMONIUM HYDROXIDE (CAS 1336-21-6)		
<u>Acute</u>		
Inhalation		
LC50	Rat	11590 mg/l, 1 h
Oral		
LD50	Rat	350 mg/kg bw OECD 401
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
HYDROXYBENZOMORPHOLINE (CAS 26021-57-8)		
<u>Acute</u>		
Oral		
LD50	Rat	1000 - 2000 mg/kg OECD 401
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

Components	Species	Test Results
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/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
Oral		
LD50	Rat	671 mg/kg EPA OPPTS 870.1100
P-PHENYLENEDIAMINE (CAS 106-50-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 7940 mg/kg
Inhalation		
<i>Vapor or aerosol</i>		
LC50	Rat	0.92 mg/l, 4 Hours
Oral		
LD50	Rat	80 - 100 mg/kg bw
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

ETHANOLAMINE	OECD 404 Result: Corrosive Species: Rabbit
AMMONIUM HYDROXIDE	OECD 404 Result: Corrosive Species: Rat
HYDROXYBENZOMORPHOLINE	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
LAURIC ACID	OECD 404 Result: Slightly Irritating Species: Rabbit
DECETH-3	OECD 404, Based on test data for structurally similar materials. Result: Slightly Irritating Species: Rabbit
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
P-PHENYLENEDIAMINE	Result: Not Irritating Species: Guinea pig
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
ETHANOLAMINE	OECD 405 Result: Corrosive Species: Rabbit
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
P-PHENYLENEDIAMINE	OECD 405 Result: Irritating Species: Rabbit
M-AMINOPHENOL	OECD 405 Result: Not Irritating Species: Rabbit
HYDROXYBENZOMORPHOLINE	OECD 405, OECD 405 Result: Irritating Species: Rabbit
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 438 Result: Irritating Species: In vitro
AMMONIUM HYDROXIDE	Result: Corrosive
DECETH-3	Result: Corrosive Species: Rabbit

Respiratory or skin sensitization**Respiratory sensitization** Not a respiratory sensitizer.**Skin sensitization** May cause an allergic skin reaction.**Skin sensitization**

HYDROXYBENZOMORPHOLINE	OECD 406 Result: Not 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
M-AMINOPHENOL	OECD 429 Result: Sensitizing Species: Mouse
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 429 Result: Sensitizing Species: Mouse
P-PHENYLENEDIAMINE	OECD 429 Result: Sensitizing Species: Mouse
TOLUENE-2,5-DIAMINE	OECD 429 Result: Sensitizing Species: Mouse
ETHANOLAMINE	Result: Not Sensitizing Species: Guinea pig
AMMONIUM HYDROXIDE	Result: Not Sensitizing Species: Guinea pig

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**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
AMMONIUM HYDROXIDE	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
HYDROXYBENZOMORPHOLINE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
M-AMINOPHENOL	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
P-PHENYLENEDIAMINE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
TOLUENE-2,5-DIAMINE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
P-AMINOPHENOL	Result: In vivo tests showed mutagenic effects

Carcinogenicity Not classifiable as to carcinogenicity to humans.**IARC Monographs. Overall Evaluation of Carcinogenicity**

P-PHENYLENEDIAMINE (CAS 106-50-3)	3 Not classifiable as to carcinogenicity to humans.
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

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

P-PHENYLENEDIAMINE

10 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

M-AMINOPHENOL

100 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

P-AMINOPHENOL

100 mg/kg bw/d OECD 421

Result: NOAEL

Species: Rat

LAURIC ACID

1000 mg/kg bw/d OECD 422

Result: NOAEL

Species: Rabbit

TOLUENE-2,5-DIAMINE

50 mg/kg bw/d OECD 414, Based on test data for structurally similar materials.

Result: NOAEL

Species: Rat

HYDROXYBENZOMORPHOLINE

500 mg/kg bw/d OECD 414, No effects on development

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

ETHANOLAMINE

Test Duration: 90 d

300 mg/kg bw/d OECD 416

Result: NOAEL

Species: Rat

Specific target organ toxicity - single exposure

Not classified.

AMMONIUM HYDROXIDE

Result: Highly Irritating

Specific target organ toxicity - repeated exposure

Not classified.

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: NOEAL

Species: Rat

Test Duration: 90 d

Specific target organ toxicity - repeated exposure

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
LAURIC ACID	1000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
HYDROXYBENZOMORPHOLINE	125 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOLAMINE	150 mg/m3 air OECD 412, Inhalation Result: NOAEC Species: Rat Test Duration: 28 d
P-PHENYLENEDIAMINE	16 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
ETHANOLAMINE	300 mg/kg bw/d OECD 416, Oral Result: NOAEL Species: Rat

Aspiration hazard

Not an aspiration hazard.

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
AMMONIUM HYDROXIDE (CAS 1336-21-6)			
Aquatic			
Acute			
Algae	EC50	Chlorella vulgaris	2700 mg/l, 18 d
Crustacea	EC50	Daphnia magna	101 mg/l, 48 h ASTM E729-80
Fish	LC50	Oncorhynchus mykiss	0.89 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia magna	0.79 mg/l, 21 d
Fish	NOEC	Oncorhynchus mykiss	1.2 mg/l, 61 d OECD 210
DECETH-3 (CAS 66455-15-0)			
Aquatic			
Acute			
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

Components		Species	Test Results
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
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

Components		Species	Test Results
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
P-PHENYLENEDIAMINE (CAS 106-50-3)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.27 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.33 mg/l, 48 h OECD 202
Fish	LC50	Oncorhynchus mykiss	3.9 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	13.4 mg/l, 3 h OECD 209
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)			
DECETH-3		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	
P-PHENYLENEDIAMINE		28 - 30 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d	
TOLUENE-2,5-DIAMINE		17 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d	
Bioaccumulative potential			
Partition coefficient n-octanol / water (log Kow)			
ETHANOLAMINE		-2.3 OECD 107	
HYDROXYBENZOMORPHOLINE		0.22	
LAURETH-12		6.1 OECD 117	

Partition coefficient n-octanol / water (log Kow)

LAURIC ACID	4.2
M-AMINOPHENOL	0.21
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE	-2.8
SULFATE	

-2.8 OECD 107

P-AMINOPHENOL	0.25
P-PHENYLENEDIAMINE	-0.25
TOLUENE-2,5-DIAMINE	-0.321 OECD 107

Bioconcentration factor (BCF)

P-AMINOPHENOL	10 - 46 OECD 305 C
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Bioaccumulation

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. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class	8
Packing group	II
Transport hazard class(es)	
Label(s)	8
Packaging exceptions	154

BULK

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE), MARINE POLLUTANT (HEXADIMETHRINE CHLORIDE)
Class	8
Packing group	II
Environmental hazards	
Marine pollutant	Yes
Transport hazard class(es)	
Label(s)	8
Special provisions	B2, IB2, T11, TP2, TP27
Packaging non bulk	202

IATA**FINISHED GOODS**

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class	8
Packing group	II
ERG Number	8L

BULK

UN number UN1760
UN proper shipping name CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class 8
Packing group II
Environmental hazards
Marine pollutant Yes
ERG Number 8L

IMDG**FINISHED GOODS**

UN number UN1760
UN proper shipping name CORROSIVE LIQUID, N.O.S. (AMMONIUM HYDROXIDE, ETHANOLAMINE)
Class 8
Packing group II
Environmental Hazards
Marine pollutant No.
EmS F-A, S-B
LTD QTY Net Inner Capacity 1.00 L

BULK

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

15. Regulatory information

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

Toxic Substances Control Act (TSCA)**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

AMMONIUM HYDROXIDE (CAS 1336-21-6)	Listed.
P-PHENYLENEDIAMINE (CAS 106-50-3)	Listed.
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical No (Exempt)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
AMMONIUM HYDROXIDE	1336-21-6	3.89
P-PHENYLENEDIAMINE	106-50-3	≤ 2
TOLUENE-2,5-DIAMINE	95-70-5	< 2

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

P-PHENYLENEDIAMINE (CAS 106-50-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

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

Issue date 09-21-2021

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.