

1. Identification

Product identifier L'ORÉAL PROFESSIONNEL INOA ULTRA PERMANENT HAIR COLOR - GROUP 1

Other means of identification

SDS number 80-21-0000473

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

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.

Precautionary statement

Prevention Do not breathe mist/vapors. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

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	%
MINERAL OIL		8042-47-5	60
ETHANOLAMINE		141-43-5	< 5
TOLUENE-2,5-DIAMINE		95-70-5	< 3
DECYL GLUCOSIDE		68515-73-1	1.51
SODIUM LAURYL SULFATE		68955-19-1	1.24
M-AMINOPHENOL		591-27-5	< 2
P-AMINOPHENOL		123-30-8	< 0.8
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	< 0.6
HYDROXYETHYL-3,4-METHYLEN EDIOXYANILINE HCL		94158-14-2	< 0.5
N,N-BIS(2-HYDROXYETHYL)-p-PH ENYLENEDIAMINE SULFATE		54381-16-7	≤ 0.5
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	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 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	Foam. Dry chemicals. 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	Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Will burn if involved in a fire. 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.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

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

7. Handling and storage

Precautions for safe handling Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Keep away from heat and sources of ignition. 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
ETHANOLAMINE (CAS 141-43-5)	PEL	6 mg/m ³	
		3 ppm	
MINERAL OIL (CAS 8042-47-5)	PEL	5 mg/m ³	Mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
ETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm	
	TWA	3 ppm	
MINERAL OIL (CAS 8042-47-5)	TWA	5 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
ETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m ³	
		6 ppm	
	TWA	8 mg/m ³	
MINERAL OIL (CAS 8042-47-5)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	TWA	0.025 mg/m ³ 0.005 ppm

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

Exposure guidelines

US WEEL Guides: Skin designation

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

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. 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 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 Not available.

Odor threshold Not available.

pH 10.4 - 11.4

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	>= 0.89 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.

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.

Product	Species	Test Results
L'ORÉAL PROFESSIONNEL INOA ULTRA PERMANENT HAIR COLOR - GROUP 1		
Acute		
Dermal		
ATEmix		25930 mg/kg
Oral		
ATEmix		3998 mg/kg
Components	Species	Test Results
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
DECYL GLUCOSIDE (CAS 68515-73-1)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg OECD 402
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
ETHANOLAMINE (CAS 141-43-5)		
Acute		
Dermal		
LD50	Rabbit	2504 mg/kg OECD 402
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 1.3 mg/l, 6 h
Oral		
LD50	Rat	1515 mg/kg OECD 401
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL (CAS 94158-14-2)		
Acute		
Oral		
LD50	Rat	1650 mg/kg OECD 401
M-AMINOPHENOL (CAS 591-27-5)		
Acute		
Inhalation		
LC50	Rat	1162 mg/m3
Oral		
LD50	Rat	924 mg/kg
MINERAL OIL (CAS 8042-47-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg OECD 402
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 5 mg/L air, 4 h OECD 403
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
Acute		
Dermal		
LD50	-	428 mg/kg
Inhalation		
LC50	-	0.9 mg/l, 4 h
Oral		
LD50	Rat	264 mg/kg

Components	Species	Test Results
P-AMINOPHENOL (CAS 123-30-8)		
Acute		
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
SODIUM LAURYL SULFATE (CAS 68955-19-1)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Oral		
LD50	Rat	4010 mg/kg OECD 401
TOLUENE-2,5-DIAMINE (CAS 95-70-5)		
Oral		
LD50	Rat	102 mg/kg OECD 401
Acute		
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
6-HYDROXYINDOLE	OECD 404	Result: Not Irritating Species: Rabbit
DECYL GLUCOSIDE	OECD 404	Result: Not Irritating Species: Rabbit
M-AMINOPHENOL	OECD 404	Result: Not Irritating Species: Rabbit
MINERAL OIL	OECD 404	Result: Not Irritating Species: Rabbit
SODIUM LAURYL SULFATE	OECD 404, (88.7% a.i.)	Result: Irritating Species: Rabbit
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 439	Result: Not Irritating Species: In vitro
TOLUENE-2,5-DIAMINE	OECD 439	Result: Not Irritating Species: In vitro
4-AMINO-2-HYDROXYTOLUENE	OECD 439	Result: Not Irritating Species: RhE
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	OECD 439	Result: Not Irritating Species: RhE
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
6-HYDROXYINDOLE	OECD 405 Result: Corrosive Species: Rabbit
DECYL GLUCOSIDE	OECD 405 Result: Corrosive Species: Rabbit
ETHANOLAMINE	OECD 405 Result: Corrosive Species: Rabbit
TOLUENE-2,5-DIAMINE	OECD 405 Result: Corrosive Species: Rabbit
M-AMINOPHENOL	OECD 405 Result: Not Irritating Species: Rabbit
MINERAL OIL	OECD 405 Result: Not Irritating Species: Rabbit
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 438 Result: Irritating Species: In vitro
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	OECD 492 Result: Irritating Species: RhCE
4-AMINO-2-HYDROXYTOLUENE	OECD 492 Result: Not Irritating Species: RhCE

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Skin sensitization

DECYL GLUCOSIDE	OECD 406 Result: Not Sensitizing Species: Guinea pig
MINERAL OIL	OECD 406 Result: Not Sensitizing Species: Guinea pig
SODIUM LAURYL SULFATE	OECD 406 Result: Not Sensitizing Species: Guinea pig
P-AMINOPHENOL	OECD 406 Result: Sensitizing Species: Guinea pig
4-AMINO-2-HYDROXYTOLUENE	OECD 429 Result: Sensitizing Species: Mouse
6-HYDROXYINDOLE	OECD 429 Result: Sensitizing Species: Mouse
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	OECD 429 Result: Sensitizing Species: Mouse
M-AMINOPHENOL	OECD 429 Result: Sensitizing Species: Mouse
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 429 Result: Sensitizing Species: Mouse
TOLUENE-2,5-DIAMINE	OECD 429 Result: Sensitizing Species: Mouse

Skin sensitization
ETHANOLAMINE

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

DECYL GLUCOSIDE	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
MINERAL OIL	Result: In vitro tests did not show mutagenic effects
SODIUM LAURYL SULFATE	Result: In vitro tests did not show mutagenic effects
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	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.
TOLUENE-2,5-DIAMINE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
4-AMINO-2-HYDROXYTOLUENE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo tests.
6-HYDROXYINDOLE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo tests.
P-AMINOPHENOL	Result: In vivo tests showed mutagenic effects

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

MINERAL OIL (CAS 8042-47-5)	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

MINERAL OIL	> 5000 mg/kg bw/d OECD 414, No effects on development Result: NOAEL Species: Rat
ETHANOLAMINE	>= 450 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	>= 50 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
M-AMINOPHENOL	100 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
P-AMINOPHENOL	100 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat
DECYL GLUCOSIDE	1000 mg/kg bw/d OECD 414, No effects on development Species: Rat
4-AMINO-2-HYDROXYTOLUENE	180 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
SODIUM LAURYL SULFATE	250 mg/kg bw/d OECD 414, Based on test data for structurally similar materials. Result: NOEL Species: Rat
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	26 mg/kg bw/day 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

Developmental effects

6-HYDROXYINDOLE

50 mg/kg bw/d
Result: NOAEL
Species: Rat**Reproductivity**

MINERAL OIL

>= 2000 mg/kg bw/d OECD 415, No effects on fertility
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

DECYL GLUCOSIDE

1000 mg/kg bw/d OECD 421, No effects on fertility
Result: NOAEL
Species: Rat

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

20 mg/kg bw/d OECD 408
Result: NOAEL
Species: Rat

4-AMINO-2-HYDROXYTOLUENE

Test Duration: 90 d
200 mg/kg bw/d OECD 415
Result: NOAEL
Species: Rat

ETHANOLAMINE

300 mg/kg bw/d OECD 416
Result: NOAEL
Species: Rat**Specific target organ toxicity - single exposure** Not classified.

SODIUM LAURYL SULFATE

Result: Irritating

Specific target organ toxicity - repeated exposure Not classified.

MINERAL OIL

> 2000 mg/kg bw/d OECD 411, Dermal
Result: NOAEL
Species: Rat

Test Duration: 90 d

> 50 mg/m³ air OECD 412, Inhalation

Result: NOAEC

Species: Rat

Test Duration: 28 d

>= 1200 mg/kg bw/d OECD 453, Oral

Result: NOAEL

Species: Rat

Test Duration: 2 years

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

6-HYDROXYINDOLE

100 mg/kg bw/d OECD 408, Oral

Result: NOAEL

Species: Rat

Test Duration: 90 d

DECYL GLUCOSIDE

1000 mg/kg bw/d EU B.26, Oral

Result: NOAEL

Species: Rat

Test Duration: 90 d

ETHANOLAMINE

150 mg/m³ air OECD 412, Inhalation

Result: NOAEC

Species: Rat

Test Duration: 28 d

Specific target organ toxicity - repeated exposure

4-AMINO-2-HYDROXYTOLUENE	180 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 13 weeks
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
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
DECYL GLUCOSIDE (CAS 68515-73-1)		
Aquatic		
<i>Acute</i>		
Algae	EC50	Desmodesmus subspicatus 19 mg/l, 72 h DIN 38412 PT 9
Crustacea	EC50	Daphnia magna 7 mg/l, 48 h OECD 202

Components		Species	Test Results
	NOEC	Daphnia magna	2 mg/l, 21 d OECD 202
Fish	LC50	Danio rerio	2.95 mg/l, 96 h OECD 203
Other	EC0	Pseudomonas putida	1000 mg/l, 0.5 h DIN 38412 PT 8
<i>Chronic</i>			
Fish	NOEC	Danio rerio	1.8 mg/l, 28 d OECD 204
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
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL (CAS 94158-14-2)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	17.9 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	2.67 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	106 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	77 mg/l, 3 h OECD 209
<i>Chronic</i>			
Algae	NOEC	Desmodesmus subspicatus	12.5 mg/l, 72 h OECD 201
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
MINERAL OIL (CAS 8042-47-5)			
Aquatic			
<i>Acute</i>			
Algae	NOEL	Pseudokirchneriella subcapitata	> 100 mg/l, 72 h OECD 201
Crustacea	EL50	Daphnia magna	> 100 mg/l, 48 h OECD 202
Fish	LL50	Oncorhynchus mykiss	> 100 mg/l, 96 h OECD 203
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	10 mg/l, 21 d OECD 211
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

Components		Species	Test Results
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
SODIUM LAURYL SULFATE (CAS 68955-19-1)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	20 mg/l, 72 h EU C.3
Crustacea	EC50	Daphnia magna	2.8 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	1.3 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	680 mg/l, 3 h EU C.11
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.14 mg/l, 21 d OECD 202
Fish	NOEC	Pimephales promelas	0.11 mg/l, 34 d OECD 210
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)

4-AMINO-2-HYDROXYTOLUENE	0 % OECD 301 B Result: Not Readily Biodegradable Test Duration: 28 d
6-HYDROXYINDOLE ETHANOLAMINE	Result: Not Biodegradable > 90 % OECD 301 A Result: Readily Biodegradable Test Duration: 21 d
HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL	0 - 16 % OECD 301 B Result: Not Readily Biodegradable Test Duration: 28 d
MINERAL OIL	31 % OECD 301 F Result: Not Readily Biodegradable
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	14.3 % OECD 301B Result: Not Readily Biodegradable Test Duration: 28 d

Biodegradability

Percent degradation (Aerobic biodegradation)

SODIUM LAURYL SULFATE

93 % EU C.4-C

Result: Readily Biodegradable

Test Duration: 28 d

TOLUENE-2,5-DIAMINE

17 % OECD 301 D

Result: Not Readily Biodegradable

Test Duration: 28 d

Percent degradation (Aerobic biodegradation-inherent)

DECYL GLUCOSIDE

100 % OECD 301 E

Result: Readily Biodegradable

Test Duration: 28 d

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

4-AMINO-2-HYDROXYTOLUENE

-0.53 EU A.8

0.53 OECD 117

6-HYDROXYINDOLE

1.46 EU A.8

ETHANOLAMINE

-2.3 OECD 107

HYDROXYETHYL-3,4-METHYLENEDIOXYANILINE HCL

0.412, OECD 117

M-AMINOPHENOL

5.6

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

-2.8

-2.8 OECD 107

P-AMINOPHENOL

0.25

SODIUM LAURYL SULFATE

-2.1 OECD 107

TOLUENE-2,5-DIAMINE

-0.321 OECD 107

Bioconcentration factor (BCF)

P-AMINOPHENOL

10 - 46 OECD 305 C

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. (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)

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.**16. Other information, including date of preparation or last revision****Issue date** 02-14-2022**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.