SAFETY DATA SHEET

1. Identification

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

Other means of identification

SDS number 80-21-0000480

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	4.35
DECYL GLUCOSIDE		68515-73-1	1.51
SODIUM LAURYL SULFATE		68955-19-1	1.24
TOLUENE-2,5-DIAMINE		95-70-5	< 1
RESORCINOL		108-46-3	≤ 1
M-AMINOPHENOL		591-27-5	< 0.2
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 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/m3	
		3 ppm	
MINERAL OIL (CAS 8042-47-5)	PEL	5 mg/m3	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/m3	Inhalable fraction.
RESORCINOL (CAS 108-46-3)	STEL	20 ppm	
	TWA	10 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
ETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m3	
		6 ppm	
	TWA	8 mg/m3	
		3 ppm	
MINERAL OIL (CAS 8042-47-5)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
RESORCINOL (CAS 108-46-3)	STEL	90 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
		20 ppm	
	TWA	45 mg/m3	
		10 ppm	

US. Workplace Environmental Exposure Level (WEEL) Guides

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

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

Exposure guidelines

US WEEL Guides: Skin designation

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

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

Form Cream.

Color Shaded.

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 > 199.4 °F (> 93.0 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. 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		47570 mg/kg
Oral		
ATEmix		19290 mg/kg

Components	Species	Test Results
DECYL GLUCOSIDE (CAS 68515-73-1)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg OECD 402

Components	Species	Test Results
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
ETHANOLAMINE (CAS 141-43-5)		
Acute		
Dermal		
LD50	Rabbit	2504 mg/kg OECD 402
Inhalation		
Vapor		
LC50	Rat	> 1.3 mg/l, 6 h
Oral		
LD50	Rat	1515 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		
Aerosol		
LC50	Rat	> 5 mg/L air, 4 h OECD 403
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
P-AMINOPHENOL (CAS 123-30-8)		
Acute		
Dermal		
LD50	Rabbit	> 8000 mg/kg EPA OPTTS 870.1200
Inhalation		
Dust		
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)		
Acute		
Dermal		
LD50	Rabbit	2830 mg/kg FHSL Act
Inhalation		
Aerosol		
LC0	Rat	> 7800 mg/m³, 1 h FHSL Act
Oral		
LD50	Rat	510 mg/kg OECD 401
SODIUM LAURYL SULFATE (CAS 68955-19-1)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Oral		
LD50	Rat	4010 mg/kg OECD 401

Components	Species	Test Results
TOLUENE-2,5-DIAMINE (CAS 95-70-5)		
Oral		
LD50	Rat	102 mg/kg OECD 401
Acute		
Dermal		
LD50	Rabbit	3520 mg/kg
Inhalation		
Dust		
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
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
RESORCINOL	OECD 404, (2.5%) Result: Not Irritating Species: Rabbit
SODIUM LAURYL SULFATE	OECD 404, (88.7% a.i.) Result: Irritating Species: Rabbit
TOLUENE-2,5-DIAMINE	OECD 439 Result: Not Irritating Species: In vitro
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
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

Irritation Corrosion - Eye

RESORCINOL	OECD 405, (2.5%) Result: Not Irritating Species: Rabbit

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
M-AMINOPHENOL	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 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.
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
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.
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.
RESORCINOL (CAS 108-46-3)	3 Not classifiable as to carcinogenicity to humans.
TOLUENE-2,5-DIAMINE (CAS 95-70-5)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity 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

Developmental effects

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
RESORCINOL	250 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
TOLUENE-2,5-DIAMINE	50 mg/kg bw/d OECD 414, Based on test data for structurally similar materials. 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
RESORCINOL	245 mg/kg bw/d OECD 416 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

Specific target organ toxicity - repeated exposure

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
M-AMINOPHENOL	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
RESORCINOL	80 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d 991 mg/m³ Result: NOAEC Species: Rat Test Duration: 14 d

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
DECYL GLUCOSIDE (CAS 68515-73-1)			
Aquatic			
Acute			
Algae	EC50	Desmodesmus subspicatus	19 mg/l, 72 h DIN 38412 PT 9
Crustacea	EC50	Daphnia magna	7 mg/l, 48 h OECD 202
	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
Chronic			
Fish	NOEC	Danio rerio	1.8 mg/l, 28 d OECD 204
ETHANOLAMINE (CAS 141-43-5)			
Aquatic			
Acute			
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
Chronic			
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
M-AMINOPHENOL (CAS 591-27-5)			
Acute			
Other	IC50	Tetrahymena pyriformis	361 mg/l, 40 h
Aquatic			
Acute			
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
Chronic			
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			
Acute			
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
Chronic			
Crustacea	NOEC	Daphnia magna	10 mg/l, 21 d OECD 211
P-AMINOPHENOL (CAS 123-30-8)			
Aquatic			
Acute			
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			
Acute			
Algae	EC50	Pseudokirchneriella subcapitata	> 97 mg/l, 97 h OECD 201
Crustacea	LC50	Daphnia magna	1 mg/l, 48 h OECD 202
Fish	LC50	Pimephales promelas	26.8 mg/l, 96 h EPA-660/3/75-009
Other		Activated sludge of a predominantly domestic sewage	79 mg/l, 3 h OECD 209
Chronic			
Crustacea	NOEC	Daphnia magna	>= 0.172 mg/l, 21 d
Fish	LOEC	Oncorhynchus mykiss	320 mg/l, 60 d
SODIUM LAURYL SULFATE (CAS 68955-19-1)			
Aquatic			
Acute			
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
Chronic			
Crustacea	NOEC	Daphnia magna	0.14 mg/l, 21 d OECD 202
Fish	NOEC	Pimephales promelas	0.11 mg/l, 34 d OECD 210

Components		Species	Test Results
TOLUENE-2,5-DIAMINE (CAS 95-70-5)			
Aquatic			
Acute			
Algae	EC50	Pseudokirchneriella subcapitata	1.02 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.491 mg/l, 48 h OECD 202
Fish	LC50	Oryzias latipes	0.05 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	3.75 mg/l, 3 h OECD 209
Chronic			
Algae	NOEC	Pseudokirchneriella subcapitata	0.11 mg/l, 72 h OECD 201

Persistence and degradability

Biodegradability

Percent degradation (Aerobic biodegradation)

ETHANOLAMINE	> 90 % OECD 301 A Result: Readily Biodegradable Test Duration: 21 d
MINERAL OIL	31 % OECD 301 F Result: Not Readily Biodegradable
RESORCINOL	66.7 % OECD 301 C Result: Readily Biodegradable Test Duration: 14 d
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)

ETHANOLAMINE	-2.3 OECD 107
M-AMINOPHENOL	5.6
P-AMINOPHENOL	0.25
RESORCINOL	0.8
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)

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	< 1

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	03-07-2022
Revision date	03-07-2022
Version #	02
NFPA ratings	Health: 3 Flammability: 1 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
Revision information	Composition / Information on Ingredients: Ingredients