SAFETY DATA SHEET

1. Identification

Product identifier **MATRIX SOCOLOR.BEAUTY PERMAMENT CREAM HAIR COLOR - GROUP 1**

Other means of identification

SDS number 80-21-0000225

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 1B
Serious eye damage/eye irritation	Category 1
Sensitization, skin	Category 1A
Reproductive toxicity	Category 2

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Suspected of damaging fertility or the unborn child.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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	%
AMMONIUM HYDROXIDE		1336-21-6	< 6
DECETH-3		66455-15-0	≤ 9
LAURETH-12		68439-50-9	≤ 7
OLEYL ALCOHOL		68002-94-8	< 3
TOLUENE-2,5-DIAMINE		95-70-5	< 2
2,4-DIAMINOPHENOXYETHANOL HCL		66422-95-5	< 2
RESORCINOL		108-46-3	< 2
P-AMINOPHENOL		123-30-8	< 2
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	< 2
SILICA DIMETHYL SILYLATE		68611-44-9	< 2
ETHANOLAMINE		141-43-5	< 2
M-AMINOPHENOL		591-27-5	< 0.7
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE		54381-16-7	< 0.6
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		155601-30-2	≤ 1
1-NAPHTHOL		90-15-3	≤ 1
P-PHENYLENEDIAMINE		106-50-3	< 0.5
PENTASODIUM PENTETATE		140-01-2	≤ 0.8
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	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. 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	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in tightly closed container. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

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

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

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

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

US. Workplace Environmental Exposure Level (WEEL) Guides

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

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

Exposure guidelines

US - 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. Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

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

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

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

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Color Shaded

Odor Characteristic.

Odor threshold Not available.

pH 10.5

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

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
MATRIX SOCOLOR.BEAUTY PERMAMENT CREAM HAIR COLOR - GROUP 1		
Acute		
Dermal		
ATEmix		25990 mg/kg
Oral		
ATEmix		2151 mg/kg

Components	Species	Test Results
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)		
Acute		
Inhalation		
Aerosol		
LD50	Rat	> 5.24 mg/m3, 4 h OECD 403
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
1-NAPHTHOL (CAS 90-15-3)		
Acute		
Dermal		
LD50	Rabbit	>= 880 mg/kg
Inhalation		
Aerosol		
LD50	Rat	> 420 mg/m³, 1 Hours
Oral		
LD50	Rat	1000 - 2000 mg/kg

Components	Species	Test Results
2,4-DIAMINOPHENOXYETHANOL HCL (CAS 66422-95-5)		
Acute		
Oral		
LD50	Rat	1000 mg/kg OECD 401
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
Inhalation		
Aerosol		
LC50	Rat	> 2000 mg/m3, 4 h OECD 403
Oral		
LD50	Rat	600 - 1200 mg/kg
AMMONIUM HYDROXIDE (CAS 1336-21-6)		
Acute		
Inhalation		
LC50	Rat	11590 mg/l, 1 h
Oral		
LD50	Rat	350 mg/kg bw OECD 401
DECETH-3 (CAS 66455-15-0)		
Acute		
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)		
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
LAURETH-12 (CAS 68439-50-9)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
Aerosol		
LC50	Rat	> 1.6 mg/l, 4 h OECD 403
Oral		
LD50	Rat	> 2000 mg/kg OECD 401

Components	Species	Test Results
M-AMINOPHENOL (CAS 591-27-5)		
Acute		
Inhalation		
LC50	Rat	1162 mg/m3
Oral		
LD50	Rat	924 mg/kg
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
Acute		
Oral		
LD50	Rat	264 mg/kg
OLEYL ALCOHOL (CAS 68002-94-8)		
Acute		
Dermal		
LD50	Rabbit	8000 mg/kg Based on test data for structurally similar materials.
Oral		
LD50	Rat	> 2000 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
PENTASODIUM PENTETATE (CAS 140-01-2)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg OECD 402
Inhalation		
Dust		
LD50	Rat	1 - 5 mg/l, 4 h
Oral		
LD50	Rat	> 5000 mg/kg OECD 401
P-PHENYLENEDIAMINE (CAS 106-50-3)		
Acute		
Dermal		
LD50	Rabbit	> 7940 mg/kg
Inhalation		
Vapor or aerosol		
LC50	Rat	0.92 mg/l, 4 Hours
Oral		
LD50	Rat	80 - 100 mg/kg bw
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

Components	Species	Test Results
Oral		
LD50	Rat	510 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		
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
AMMONIUM HYDROXIDE	OECD 404 Result: Corrosive Species: Rat
2,4-DIAMINOPHENOXYETHANOL HCL	OECD 404 Result: Not Irritating Species: Rabbit
6-HYDROXYINDOLE	OECD 404 Result: Not Irritating Species: Rabbit
LAURETH-12	OECD 404 Result: Not Irritating Species: Rabbit
M-AMINOPHENOL	OECD 404 Result: Not Irritating Species: Rabbit
PENTASODIUM PENTETATE	OECD 404 Result: Not Irritating Species: Rabbit
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	OECD 404 Result: Slightly Irritating Species: Rabbit
RESORCINOL	OECD 404, (2.5%) Result: Not Irritating Species: Rabbit
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
4-AMINO-2-HYDROXYTOLUENE	OECD 439 Result: Not Irritating Species: RhE
1-NAPHTHOL	Result: Irritating Species: Rabbit
P-PHENYLENEDIAMINE	Result: Not Irritating Species: Guinea pig
OLEYL ALCOHOL	Result: Slightly Irritating Species: Rabbit

Irritation Corrosion - Skin

P-AMINOPHENOL	Result: Slightly Irritating Species: Rabbit

Serious eye damage/eye irritation Causes serious eye damage.

Irritation Corrosion - Eye

P-AMINOPHENOL	EPA OPPTS 870.2400 Result: Slightly Irritating Species: Rabbit
RESORCINOL	FHLS Act, (100%) Result: Corrosive Species: Rabbit
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	OECD 405 Result: Corrosive Species: Rabbit
6-HYDROXYINDOLE	OECD 405 Result: Corrosive Species: Rabbit
ETHANOLAMINE	OECD 405 Result: Corrosive Species: Rabbit
LAURETH-12	OECD 405 Result: Corrosive Species: Rabbit
TOLUENE-2,5-DIAMINE	OECD 405 Result: Corrosive Species: Rabbit
2,4-DIAMINOPHENOXYETHANOL HCL	OECD 405 Result: Irritating Species: Rabbit
P-PHENYLENEDIAMINE	OECD 405 Result: Irritating Species: Rabbit
M-AMINOPHENOL	OECD 405 Result: Not Irritating Species: Rabbit
PENTASODIUM PENTETATE	OECD 405 Result: Not Irritating Species: Rabbit
RESORCINOL	OECD 405, (2.5%) Result: Not Irritating Species: Rabbit
1-NAPHTHOL	OECD 438 Result: Corrosive Species: In vitro
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 438 Result: Irritating Species: In vitro
4-AMINO-2-HYDROXYTOLUENE	OECD 492 Result: Not Irritating Species: RhCE
AMMONIUM HYDROXIDE	Result: Corrosive
DECETH-3	Result: Corrosive Species: Rabbit
OLEYL ALCOHOL	Result: Not Irritating Species: Rabbit

Respiratory or skin sensitization

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

Skin sensitization May cause an allergic skin reaction.

Skin sensitization

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	EU Method B.6 - Cat 1 Result: Sensitizing Species: Guinea pig
LAURETH-12	OECD 406 Result: Not Sensitizing Species: Guinea pig

Skin sensitization

PENTASODIUM PENTETATE	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
1-NAPHTHOL	OECD 429 Result: Sensitizing Species: Mouse
2,4-DIAMINOPHENOXYETHANOL HCL	OECD 429 Result: Sensitizing Species: Mouse
4-AMINO-2-HYDROXYTOLUENE	OECD 429 Result: Sensitizing Species: Mouse
6-HYDROXYINDOLE	OECD 429 Result: Sensitizing Species: Mouse
M-AMINOPHENOL	OECD 429 Result: Sensitizing Species: Mouse
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	OECD 429 Result: Sensitizing Species: Mouse
P-PHENYLENEDIAMINE	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
OLEYL ALCOHOL	Result: Not Sensitizing Species: Rabbit
AMMONIUM HYDROXIDE	Result: Not Sensitzing Species: Guinea pig

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

Mutagenicity

LAURETH-12	Result: In vitro and in vivo tests did not show mutagenic effects.
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	Result: In vitro and in vivo tests did not show mutagenic effects.
OLEYL ALCOHOL	Result: In vitro and in vivo tests did not show mutagenic effects.
ETHANOLAMINE	Result: In vitro and in vivo tests did show mutagenic effects
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	Result: In vitro tests did not show mutagenic effects
AMMONIUM HYDROXIDE	Result: In vitro tests did not show mutagenic effects
DECETH-3	Result: In vitro tests did not show mutagenic effects
PENTASODIUM PENTETATE	Result: In vitro tests did not show mutagenic effects
2,4-DIAMINOPHENOXYETHANOL HCL	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
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.
RESORCINOL	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.

Mutagenicity

TOLUENE-2,5-DIAMINE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
4-AMINO-2-HYDROXYTOLUENE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo tests.
6-HYDROXYINDOLE	Result: In vitro tests showed mutagenic effects which were not observed with in vivo tests.
1-NAPHTHOL	Result: In vitro tests showed varied results. In vivo tests showed negative results.
P-AMINOPHENOL	Result: In vivo tests showed mutagenic effects

Carcinogenicity Not classifiable as to carcinogenicity to humans. Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

P-PHENYLENEDIAMINE (CAS 106-50-3)	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 Suspected of damaging fertility or the unborn child.

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
PENTASODIUM PENTETATE	100 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
P-AMINOPHENOL	100 mg/kg bw/d OECD 421 Result: NOAEL Species: Rat
4-AMINO-2-HYDROXYTOLUENE	180 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
2,4-DIAMINOPHENOXYETHANOL HCL	20 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
OLEYL ALCOHOL	2000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
RESORCINOL	250 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
1-NAPHTHOL	400 mg/kg bw/d OECD 414 Result: NOAEL Species: Rat
TOLUENE-2,5-DIAMINE	50 mg/kg bw/d OECD 414, Based on test data for structurally similar materials. Result: NOAEL Species: Rat
6-HYDROXYINDOLE	50 mg/kg bw/d Result: NOAEL Species: Rat

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
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
4-AMINO-2-HYDROXYTOLUENE	200 mg/kg bw/d OECD 415 Result: NOAEL Species: Rat
OLEYL ALCOHOL	2000 mg/kg bw/d OECD 422 Result: NOAEL Species: Rat
RESORCINOL	245 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	300 mg/kg bw/d OECD 415 Species: Rat
ETHANOLAMINE	300 mg/kg bw/d OECD 416 Result: NOAEL Species: Rat
1-NAPHTHOL	Result: No Data

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible.

AMMONIUM HYDROXIDE	Result: Highly Irritating
1-NAPHTHOL	Result: Irritating

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

PENTASODIUM PENTETATE	> 15 mg/m3 air OECD 413, Inhalation Result: NOAEC Species: Rat
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
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
6-HYDROXYINDOLE	100 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
1-NAPHTHOL	130 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d

Specific target organ toxicity - repeated exposure

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
4-AMINO-2-HYDROXYTOLUENE	180 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
2,4-DIAMINOPHENOXYETHANOL HCL	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
M-AMINOPHENOL	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	20 mg/kg bw/d OECD 408 Result: NOAEL Species: Rat Test Duration: 90 d
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	250 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d
ETHANOLAMINE	300 mg/kg bw/d OECD 416, Oral Result: NOAEL Species: Rat
PENTASODIUM PENTETATE	75 mg/kg bw/d OECD 407, 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 Due to partial or complete lack of data the classification is not possible.

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
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)			
Aquatic			
Acute			
Algae		Pseudokirchneriella subcapitata	5.33 mg/l, 72 h EU C.3
Crustacea	EC50	Daphnia magna	11.12 mg/l, 48 h TG 202
Fish	LC50	Danio rerio	86.2 mg/l, 96 h EU C.1

Components		Species	Test Results
1-NAPHTHOL (CAS 90-15-3)			
Aquatic			
Acute			
Algae	EC50	Pseudokirchneriella subcapitata	> 2.18 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	2.51 mg/l, 48 h
Fish	LC50	Pimephales promelas	4.24 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia magna	0.25 mg/l, 21 d OECD 211
2,4-DIAMINOPHENOXYETHANOL HCL (CAS 66422-95-5)			
Aquatic			
Acute			
Algae	EC50	Pseudokirchneriella subcapitata	36.5 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	7.4 mg/l, 48 h OECD 202
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)			
Aquatic			
Acute			
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
Chronic			
Crustacea	NOEC	Daphnia magna	0.24 mg/l, 21 d OECD 211
6-HYDROXYINDOLE (CAS 2380-86-1)			
Acute			
Aquatic			
Acute			
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
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
Other	EC0	Activated sludge of a predominantly domestic sewage	140 mg/l, 3 h 88/302/EG

Components		Species	Test Results
Chronic			
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			
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
LAURETH-12 (CAS 68439-50-9)			
Aquatic			
Acute			
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
Chronic			
Crustacea	NOEC	Daphnia magna	0.77 mg/l, 21 d
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
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)			
Aquatic			
Acute			
Algae	EC50	Pseudokirchneriella subcapitata	0.338 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.381 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	> 235 mg/l, 96 h
Other	EC50	Activated sludge of a predominantly domestic sewage	228 mg/l, 3 h OECD 209
Chronic			
Crustacea	NOEC	Daphnia magna	0.674 mg/l, 21 d OECD 211
OLEYL ALCOHOL (CAS 68002-94-8)			
Aquatic			
Acute			
Algae	EC50	Algae	250 mg/l OECD 201
Fish	LC50	Fish	> 1000 mg/l OECD 203

Components		Species	Test Results
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
PENTASODIUM PENTETATE (CAS 140-01-2)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	1005 - 1250 mg/l, 96 hours
Acute			
Crustacea	EC50	Daphnia carinata	245 mg/l, 48 h OECD 202
Fish	NOEC	Oncorhynchus mykiss	1000 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	> 500 mg/l, 30 min OECD 209
Chronic			
Algae	NOEC	Scenedesmus quadricauda	400 mg/l, 23 d
Crustacea	NOEC	Daphnia carinata	67 mg/l, 18 d OECD 211
Fish	NOEC	Melanotaenia fluviatilis	100 mg/l, 28 d
P-PHENYLENEDIAMINE (CAS 106-50-3)			
Aquatic			
Acute			
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
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
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)

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	33.3 % EU C.4-E Result: Not readily biodegradable
1-NAPHTHOL	> 77.8 % OECD 301 B Result: Readily Biodegradable Test Duration: 28 d
4-AMINO-2-HYDROXYTOLUENE	0 % OECD 301 B Result: Not Readily Biodegradable Test Duration: 28 d
6-HYDROXYINDOLE	Result: Not Biodegradable
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 Readilby Biodegradable Test Duration: 28 d
OLEYL ALCOHOL	87 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d
PENTASODIUM PENTETATE	0 % OECD 301 F Result: Not Readily Biodegradable Test Duration: 28 d
P-PHENYLENEDIAMINE	28 - 30 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d
RESORCINOL	66.7 % OECD 301 C Result: Readily Biodegradable Test Duration: 14 d
TOLUENE-2,5-DIAMINE	17 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1-NAPHTHOL	2.836 OECD 107
4-AMINO-2-HYDROXYTOLUENE	-0.53 EU A.8 0.53 OECD 117
6-HYDROXYINDOLE	1.46 EU A.8
ETHANOLAMINE	-2.3 OECD 107
LAURETH-12	6.1 OECD 117
M-AMINOPHENOL	0.21
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	-2.8 -2.8 OECD 107
P-AMINOPHENOL	0.25
P-PHENYLENEDIAMINE	-0.25
RESORCINOL	0.8
TOLUENE-2,5-DIAMINE	-0.321 OECD 107

Bioconcentration factor (BCF)

P-AMINOPHENOL	10 - 46 OECD 305 C

Bioaccumulation

1-NAPHTHOL	Result: Bioaccumulation is unlikely
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), Limited Quantity
Class	8
Packing group	II
Transport hazard class(es)	
Label(s)	Limited Quantity
Packaging exceptions	154
LTD QTY Net Inner Capacity	1.0 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
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
Transport hazard class(es)	
Label(s)	Class 8, Limited Quantity
ERG Number	8L
LTD QTY Net Inner Capacity	0.1 L

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), Limited Quantity
Class	8
Packing group	II

Environmental Hazards

Marine pollutant No.

Transport hazard class(es)

Label(s) Limited Quantity

EmS F-A, S-B

LTD QTY Net Inner Capacity 1.0 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

General information IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

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.
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.
AMMONIUM HYDROXIDE	1336-21-6	< 6
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.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

RESORCINOL (CAS 108-46-3) Low priority

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

Issue date 12-23-2019

Version # 01

NFPA ratings Health: 3
Flammability: 1
Instability: 0

Disclaimer

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