

1. Identification

Product identifier REDKEN SHADES EQ PERMANENT HAIR COLOURS - GROUP 1

Other means of identification

SDS number 30-21-0000269

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	Flammable liquids	Category 3
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1A
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection.

Response	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep cool.
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	%
ISOPROPYL ALCOHOL		67-63-0	10
SODIUM C14-16 OLEFIN SULFONATE		68439-57-6	9
DECETH-3		66455-15-0	8.1
COCAMIDE MIPA		68333-82-4	6.5
OLEYL ALCOHOL		68002-94-8	6
LAURYL ALCOHOL		112-53-8	1.73
TOLUENE-2,5-DIAMINE		95-70-5	< 2
2-METHYLRESORCINOL		608-25-3	< 2
4-AMINO-2-HYDROXYTOLUENE		2835-95-2	< 2
3-NITRO-P-HYDROXYETHYLAMIN OPHENOL		65235-31-6	< 2
2,4-DIAMINOPHENOXYETHANOL HCL		66422-95-5	< 2
P-PHENYLENEDIAMINE		106-50-3	≤ 2
RESORCINOL		108-46-3	< 0.7
SODIUM SULFITE		7757-83-7	≤ 1
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		155601-30-2	< 0.5
M-AMINOPHENOL		591-27-5	≤ 0.7
P-AMINOPHENOL		123-30-8	< 0.4
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE		54381-16-7	< 0.3

*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. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. 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. Get medical attention immediately.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal 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	Take off all contaminated clothing immediately. 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	Water fog. Alcohol resistant foam. Dry chemical 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	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. 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	In case of fire and/or explosion do not breathe fumes. 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	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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	Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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 handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not get this material in contact with eyes. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep out of the reach of children. Keep in an area equipped with sprinklers. 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
ISOPROPYL ALCOHOL (CAS 67-63-0)	PEL	980 mg/m3
		400 ppm
P-PHENYLENEDIAMINE (CAS 106-50-3)	PEL	0.1 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
ISOPROPYL ALCOHOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 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
ISOPROPYL ALCOHOL (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	500 ppm
		980 mg/m3
P-PHENYLENEDIAMINE (CAS 106-50-3)	TWA	0.1 mg/m3
	RESORCINOL (CAS 108-46-3)	STEL
TWA		20 ppm
		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**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
ISOPROPYL ALCOHOL (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

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

Explosion-proof general and local exhaust ventilation. 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. Provide eyewash station and safety shower.

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. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. 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	Not available. Characteristic.
Odor threshold	Not available.
pH	9.5 - 10.5
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 212 °F (> 100 °C)
Flash point	100.0 °F (37.8 °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.
Fire point	< 212.00 °F (< 100.00 °C)
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
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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. Chlorine. Isocyanates.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
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REDKEN SHADES EQ PERMANENT HAIR COLOURS - GROUP 1

Acute

Dermal

ATEmix 11260 mg/kg

Oral

ATEmix 1629 mg/kg

Components	Species	Test Results
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1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)

Acute

Inhalation

Aerosol

LD50 Rat > 5.24 mg/m³, 4 h OECD 403

Oral

LD50 Rat > 2000 mg/kg OECD 401

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

Acute

Oral

LD50 Rat 1000 mg/kg OECD 401

2-METHYLRESORCINOL (CAS 608-25-3)

Acute

Oral

LC50 Rat 200 mg/kg

3-NITRO-P-HYDROXYETHYLAMINOPHENOL (CAS 65235-31-6)

Acute

Oral

LD50 Rat 1000 - 2000 mg/kg bw/d OECD 420

4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)

Acute

Oral

LD50 Rat 3600 mg/kg

Components	Species	Test Results
COCAMIDE MIPA (CAS 68333-82-4)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg OECD 402
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
DECETH-3 (CAS 66455-15-0)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg Based on test data for structurally similar materials.
Oral		
LD50	Rat	> 2000 mg/kg Based on test data for structurally similar materials.
ISOPROPYL ALCOHOL (CAS 67-63-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	16.4 ml/kg bw OECD 402
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 10000 ppm, 6 Hours OECD 403
Oral		
LD50	Rat	5840 mg/kg bw OECD 401
LAURYL ALCOHOL (CAS 112-53-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	8000 - 12000 mg/kg OECD 402
Inhalation		
<i>Mist</i>		
LC50	Rat	> 71 mg/l, 1 h Based on test data for structurally similar materials.
Oral		
LD50	Rat	> 2000 mg/kg OECD 401
M-AMINOPHENOL (CAS 591-27-5)		
<u>Acute</u>		
Inhalation		
LC50	Rat	1162 mg/m3
Oral		
LD50	Rat	924 mg/kg
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)		
<u>Acute</u>		
Oral		
LD50	Rat	264 mg/kg
OLEYL ALCOHOL (CAS 68002-94-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	8000 mg/kg Based on test data for structurally similar materials.
Oral		
LD50	Rat	> 2000 mg/kg OECD 401

Components	Species	Test Results
P-AMINOPHENOL (CAS 123-30-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 8000 mg/kg EPA OPTTS 870.1200
Inhalation		
<i>Dust</i>		
LC50	Rat	> 3.42 mg/l, 4 h OECD 403
Oral		
LD50	Rat	671 mg/kg EPA OPPTS 870.1100
P-PHENYLENEDIAMINE (CAS 106-50-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 7940 mg/kg
Inhalation		
<i>Vapor or aerosol</i>		
LC50	Rat	0.92 mg/l, 4 Hours
Oral		
LD50	Rat	80 - 100 mg/kg bw
RESORCINOL (CAS 108-46-3)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	2830 mg/kg FHSL Act
Inhalation		
<i>Aerosol</i>		
LC0	Rat	> 7800 mg/m ³ , 1 h FHSL Act
Oral		
LD50	Rat	510 mg/kg OECD 401
SODIUM C14-16 OLEFIN SULFONATE (CAS 68439-57-6)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	6300 mg/kg OECD 402
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 52 mg/l, 4 h OECD 403
Oral		
LD50	Rat	2079 mg/kg OECD 401
SODIUM SULFITE (CAS 7757-83-7)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	2150 - 2610 mg/kg
TOLUENE-2,5-DIAMINE (CAS 95-70-5)		
Oral		
LD50	Rat	102 mg/kg OECD 401
<u>Acute</u>		
Dermal		
LD50	Rabbit	3520 mg/kg

Components	Species	Test Results
Inhalation		
<i>Dust</i>		
LC50	Rat	0.99 mg/l, 4 h
Skin corrosion/irritation	Causes skin irritation.	
Irritation Corrosion - Skin		
3-NITRO-P-HYDROXYETHYLAMINOPHENOL		6 Not applicable OECD 404 Result: Not Irritating Species: Rabbit
RESORCINOL		FHLS Act, (100%) Result: Irritating Species: Rabbit
SODIUM C14-16 OLEFIN SULFONATE		OECD 404 Result: Irritating Species: Rabbit
2,4-DIAMINOPHENOXYETHANOL HCL		OECD 404 Result: Not Irritating Species: Rabbit
LAURYL ALCOHOL		OECD 404 Result: Not Irritating Species: Rabbit
M-AMINOPHENOL		OECD 404 Result: Not Irritating Species: Rabbit
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE		OECD 404 Result: Slightly Irritating Species: Rabbit
2-METHYLRESORCINOL		OECD 404 Result: Slightly Irritating Species: Rabbit
RESORCINOL		OECD 404, (2.5%) Result: Not Irritating Species: Rabbit
COCAMIDE MIPA		OECD 404, Based on test data for structurally similar materials. Result: 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
P-PHENYLENEDIAMINE		Result: Not Irritating Species: Guinea pig
ISOPROPYL ALCOHOL		Result: Not Irritating Species: Rabbit
OLEYL ALCOHOL		Result: Slightly Irritating Species: Rabbit
P-AMINOPHENOL		Result: Slightly Irritating Species: Rabbit
Serious eye damage/eye irritation	Causes serious eye damage.	
Irritation Corrosion - Eye		
3-NITRO-P-HYDROXYETHYLAMINOPHENOL		6 % OECD 405 Result: Irritating Species: Rabbit

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
2-METHYLRESORCINOL	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
LAURYL ALCOHOL	OECD 405 Result: Irritating Species: Rabbit
P-PHENYLENEDIAMINE	OECD 405 Result: Irritating Species: Rabbit
M-AMINOPHENOL	OECD 405 Result: Not Irritating Species: Rabbit
ISOPROPYL ALCOHOL	OECD 405 Result: Severely Irritating Species: Rabbit
RESORCINOL	OECD 405, (2.5%) Result: Not Irritating Species: Rabbit
SODIUM C14-16 OLEFIN SULFONATE	OECD 405, 5% < C ≤ 38% Result: Irritating Species: Rabbit
COCAMIDE MIPA	OECD 405, Based on test data for structurally similar materials. Result: Corrosive Species: Rabbit
SODIUM C14-16 OLEFIN SULFONATE	OECD 405, C >38% Result: Corrosive Species: Rabbit
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMI NE SULFATE	OECD 438 Result: Irritating Species: In vitro
4-AMINO-2-HYDROXYTOLUENE	OECD 492 Result: Not Irritating Species: RhCE
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
COCAMIDE MIPA	OECD 406 Result: Not Sensitizing Species: Guinea pig
ISOPROPYL ALCOHOL	OECD 406 Result: Not Sensitizing Species: Guinea pig

Skin sensitization

LAURYL ALCOHOL	OECD 406 Result: Not Sensitizing Species: Guinea pig
SODIUM C14-16 OLEFIN SULFONATE	OECD 406 Result: Not Sensitizing Species: Guinea pig
P-AMINOPHENOL	OECD 406 Result: Sensitizing Species: Guinea pig
DECETH-3	OECD 406, Based on test data for structurally similar materials. Result: Not Sensitizing Species: Guinea pig
2,4-DIAMINOPHENOXYETHANOL HCL	OECD 429 Result: Sensitizing Species: Mouse
2-METHYLRESORCINOL	OECD 429 Result: Sensitizing Species: Mouse
3-NITRO-P-HYDROXYETHYLAMINOPHENOL	OECD 429 Result: Sensitizing Species: Mouse
4-AMINO-2-HYDROXYTOLUENE	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
OLEYL ALCOHOL	Result: Not Sensitizing Species: Rabbit

Germ cell mutagenicity

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

Mutagenicity

ISOPROPYL ALCOHOL	Result: In vitro and in vivo tests did not show mutagenic effects.
LAURYL ALCOHOL	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.
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	Result: In vitro tests did not show mutagenic effects
COCAMIDE MIPA	Result: In vitro tests did not show mutagenic effects
DECETH-3	Result: In vitro tests did not show mutagenic effects
SODIUM C14-16 OLEFIN SULFONATE	Result: In vitro tests did not show mutagenic effects
2,4-DIAMINOPHENOXYETHANOL HCL	Result: In vitro tests showed mutagenic effects which were not observed with in vivo test.
2-METHYLRESORCINOL	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.

Mutagenicity

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.

3-NITRO-P-HYDROXYETHYLAMINOPHENOL

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

4-AMINO-2-HYDROXYTOLUENE

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. 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.

SODIUM SULFITE (CAS 7757-83-7)

3 Not classifiable as to carcinogenicity to humans.

TOLUENE-2,5-DIAMINE (CAS 95-70-5)

3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

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

Developmental effects

COCAMIDE MIPA

> 1000 mg/kg bw/d OECD 414, Based on test data for structurally similar materials.

Result: NOAEL

Species: Rat

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

>= 50 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

SODIUM C14-16 OLEFIN SULFONATE

>= 600 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

P-PHENYLENEDIAMINE

10 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

3-NITRO-P-HYDROXYETHYLAMINOPHENOL

100 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

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

LAURYL ALCOHOL

2000 mg/kg bw/d OECD 422

Result: NOAEL

Species: Rat

RESORCINOL

250 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

2-METHYLRESORCINOL

400 mg/kg bw/d OECD 414

Result: NOAEL

Species: Rat

ISOPROPYL ALCOHOL

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

Result: NOAEL

Species: Rabbit

Developmental effects

TOLUENE-2,5-DIAMINE

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

Result: NOAEL

Species: Rat

Reproductivity

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

ISOPROPYL ALCOHOL

1000 mg/kg bw/d OECD 416, 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

Test Duration: 90 d

4-AMINO-2-HYDROXYTOLUENE

200 mg/kg bw/d OECD 415

Result: NOAEL

Species: Rat

LAURYL ALCOHOL

2000 mg/kg bw/d OECD 422

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

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

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

COCAMIDE MIPA

> 750 mg/kg bw/d OECD 407, Oral

Result: NOAEL

Species: Rat

Test Duration: 28 d

SODIUM C14-16 OLEFIN SULFONATE

>= 259 mg/kg bw/d

Result: NOAEL

Species: Rat

Test Duration: 104 wk

P-AMINOPHENOL

10 mg/kg bw/d OECD 408

Result: NOAEL

Species: Rat

Test Duration: 90 d

TOLUENE-2,5-DIAMINE

10 mg/kg bw/d OECD 408, Oral

Result: NOAEL

Species: Rat

Test Duration: 90 d

DECETH-3

100 mg/kg bw/d OECD 407, Based on test data for structurally similar materials.

Result: NOAEL

Species: Rat

Test Duration: 28 d

2-METHYLRESORCINOL

100 mg/kg bw/d OECD 408

Result: NOAEL

Species: Rat

Test Duration: 90 d

LAURYL ALCOHOL

1127 mg/kg bw/d

Result: NOAEL

Species: Rat

Test Duration: 90 d

Specific target organ toxicity - repeated exposure

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
3-NITRO-P-HYDROXYETHYLAMINOPHENOL	20 mg/kg bw/d 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
ISOPROPYL ALCOHOL	5000 ppm OECD 413, Inhalation Result: NOALE Species: Rat Test Duration: 90 d
RESORCINOL	80 mg/kg bw/d OECD 408, Oral Result: NOAEL Species: Rat Test Duration: 90 d 991 mg/m ³ Result: NOAEC Species: Rat Test Duration: 14 d

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Further information May cause allergic respiratory and skin reactions.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE (CAS 155601-30-2)		
Aquatic		
<i>Acute</i>		
Algae	Pseudokirchneriella subcapitata	5.33 mg/l, 72 h EU C.3
Crustacea	EC50 Daphnia magna	11.12 mg/l, 48 h TG 202
Fish	LC50 Danio rerio	86.2 mg/l, 96 h EU C.1
2,4-DIAMINOPHENOXYETHANOL HCL (CAS 66422-95-5)		
Aquatic		
<i>Acute</i>		
Algae	EC50 Pseudokirchneriella subcapitata	36.5 mg/l, 72 h OECD 201
Crustacea	EC50 Daphnia magna	7.4 mg/l, 48 h OECD 202

Components		Species	Test Results
2-METHYLRESORCINOL (CAS 608-25-3)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	71 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.605 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	58.1 mg/l, 96 h
Other	EC50	Activated sludge of a predominantly domestic sewage	131 mg/l, 3 h OECD 209
4-AMINO-2-HYDROXYTOLUENE (CAS 2835-95-2)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	41 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	2.3 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	25 mg/l, 96 h OECD 236
Other	EC50	Activated sludge of a predominantly domestic sewage	> 150 mg/l, 3 h OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.24 mg/l, 21 d OECD 211
COCAMIDE MIPA (CAS 68333-82-4)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	> 9.4 mg/l, 72 h OECD 201
Crustacea	LC50	Daphnia magna	3.7 mg/l, 48 h OECD 202
Fish	LC50	Fish	2.7 mg/l, 96 h QSAR
Other	EC50	Activated sludge of a predominantly domestic sewage	> 1000 mg/l, 3 h OECD 209
<i>Chronic</i>			
Algae	NOEC	Pseudokirchneriella subcapitata	1 mg/l, 72 h OECD 201
Crustacea	NOEC	Daphnia magna	0.07 mg/l, 21 d OECD 211
Fish	NOEC	Oncorhynchus mykiss	0.32 mg/l, 28 d OECD 204
DECETH-3 (CAS 66455-15-0)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	1.8 mg/l, 72 h 92/69/EWG
Crustacea	EC50	Daphnia magna	0.39 mg/l, 48 h 92/69/EWG
Fish	LC50	Cyprinus carpio	1.2 mg/l, 96 h EU C.1
Other	EC0	Activated sludge of a predominantly domestic sewage	140 mg/l, 3 h 88/302/EG
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	<= 1 mg/l, 21 d
Fish	NOEC	Lepomis macrochirus	0.16 mg/l, 10 d
ISOPROPYL ALCOHOL (CAS 67-63-0)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Scenedesmus quadricauda	> 1000 mg/l, 72 h
Crustacea	EC50	Daphnia magna	9714 mg/l, 24 h OECD 202
Fish	LC50	Pimephales promelas	9640 mg/l, 96 h OECD 203
Other	TD	Pseudomonas putida	1050 mg/l, 16 DIN 38412, Pt. 8

Components		Species	Test Results
LAURYL ALCOHOL (CAS 112-53-8)			
<i>Acute</i>			
Other	EC50	Tetrahymena pyriformis	1.58 mg/l, 48 h
Aquatic			
<i>Acute</i>			
Algae	EC50	Desmodesmus subspicatus	0.66 mg/l, 72 h
Crustacea	EC50	Daphnia magna	0.765 mg/l, 48 h
Fish	LC50	Pimephales promelas	1.01 mg/l, 96 h
<i>Chronic</i>			
Algae	NOEC	Desmodesmus subspicatus	0.085 mg/l, 72 h
Crustacea	NOEC	Daphnia magna	0.014 mg/l, 21 d
M-AMINOPHENOL (CAS 591-27-5)			
<i>Acute</i>			
Other	IC50	Tetrahymena pyriformis	361 mg/l, 40 h
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	62 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	1.1 mg/l, 48 h DIN 38412, Pt. 11
Fish	LC50	Danio rerio	82.64 mg/l, 96 h OECD 203
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.05 mg/l, 21 d OECD 211
Fish	NOEC	Oryzias latipes	25 mg/l, 25 d OECD 204
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE (CAS 54381-16-7)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.338 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.381 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	> 235 mg/l, 96 h
Other	EC50	Activated sludge of a predominantly domestic sewage	228 mg/l, 3 h OECD 209
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	0.674 mg/l, 21 d OECD 211
OLEYL ALCOHOL (CAS 68002-94-8)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Algae	250 mg/l OECD 201
Fish	LC50	Fish	> 1000 mg/l OECD 203
P-AMINOPHENOL (CAS 123-30-8)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	> 0.253 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.182 mg/l, 48 h OECD 202
Fish	LC50	Oryzias latipes	0.82 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	29.9 mg/l, 3 h OECD 209
P-PHENYLENEDIAMINE (CAS 106-50-3)			
Aquatic			
<i>Acute</i>			
Algae	EC50	Pseudokirchneriella subcapitata	0.27 mg/l, 72 h OECD 201

Components		Species	Test Results
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

SODIUM C14-16 OLEFIN SULFONATE (CAS 68439-57-6)

Aquatic

Crustacea	EC50	Water flea (Ceriodaphnia dubia)	4.14 - 4.95 mg/l, 48 hours
<i>Acute</i>			
Algae	EC50	Skeletonema costatum	5.2 mg/l, 72 h ISO 10253
Crustacea	EC50	Acartia tonsa	230 mg/l, 3 h OECD 209
		Ceriodaphnia dubia	4.53 mg/l, 48 h OECD 202
Fish	LC50	Danio rerio	4.2 mg/l, 96 h OECD 203
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	6.3 mg/l, 21 d OECD 211

SODIUM SULFITE (CAS 7757-83-7)

Aquatic

Fish	LC50	Western mosquitofish (Gambusia affinis)	660 mg/l, 96 hours
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TOLUENE-2,5-DIAMINE (CAS 95-70-5)

Aquatic

Acute

Algae	EC50	Pseudokirchneriella subcapitata	1.02 mg/l, 72 h OECD 201
Crustacea	EC50	Daphnia magna	0.491 mg/l, 48 h OECD 202
Fish	LC50	Oryzias latipes	0.05 mg/l, 96 h OECD 203
Other	EC50	Activated sludge of a predominantly domestic sewage	3.75 mg/l, 3 h OECD 209

Chronic

Algae	NOEC	Pseudokirchneriella subcapitata	0.11 mg/l, 72 h OECD 201
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Persistence and degradability

Biodegradability

Percent degradation (Aerobic biodegradation)

1-HYDROXYETHYL 4,5-DIAMINO PYRAZOLE SULFATE	33.3 % EU C.4-E Result: Not readily biodegradable
2-METHYLRESORCINOL	64 % 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
COCAMIDE MIPA	74 % ISO 14593 Result: Readily Biodegradable Test Duration: 28 d

Biodegradability

Percent degradation (Aerobic biodegradation)

DECETH-3	78 % OECD 301 B Result: Readily Biodegradable Test Duration: 28 d
ISOPROPYL ALCOHOL	95 % OECD 301 E Result: Readily Biodegradable Test Duration: 21 d
LAURYL ALCOHOL	79 % OECD 301 D Result: Readily Biodegradable Test Duration: 28 d
N,N-BIS(2-HYDROXYETHYL)-p-PHENYLENEDIAMINE SULFATE	14.3 % OECD 301B Result: Not Readily Biodegradable Test Duration: 28 d
OLEYL ALCOHOL	87 % OECD 301 D 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
SODIUM C14-16 OLEFIN SULFONATE	80 % OECD 301 B Result: Readily Biodegradable Test Duration: 28 d
TOLUENE-2,5-DIAMINE	17 % OECD 301 D Result: Not Readily Biodegradable Test Duration: 28 d

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

4-AMINO-2-HYDROXYTOLUENE	-0.53 EU A.8 0.53 OECD 117
COCAMIDE MIPA	3.77
ISOPROPYL ALCOHOL	0.05
LAURYL ALCOHOL	5.4 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
SODIUM C14-16 OLEFIN SULFONATE	-1.3 EU A.8
TOLUENE-2,5-DIAMINE	-0.321 OECD 107

Bioconcentration factor (BCF)

COCAMIDE MIPA	143
P-AMINOPHENOL	10 - 46 OECD 305 C

Bioaccumulation

3-NITRO-P-HYDROXYETHYLAMINOPHENOL	0.6 Log Pow Result: Not expected to bioaccumulate
COCAMIDE MIPA	Result: Bioaccumulation is unlikely.
ISOPROPYL ALCOHOL	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.
Hazardous waste code	This product is ignitable (D001) RCRA hazardous wastes when intended for disposal.

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 UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), Limited Quantity
Class 3
Packing group III
Transport hazard class(es)
Label(s) Limited Quantity
Packaging exceptions 150
LTD QTY Net Inner Capacity 5.0 L

BULK

UN number UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL)
Class 3
Packing group III
Transport hazard class(es)
Label(s) 3
Special provisions B1, B52, IB3, T4, TP1, TP29
Packaging non bulk 203

IATA**FINISHED GOODS**

UN number ID8000
UN proper shipping name CONSUMER COMMODITY
Class 9
Packing group Not applicable.
Transport hazard class(es)
Label(s) Class 9, Limited Quantity
ERG Number 9L
LTD QTY Net Inner Capacity 0.5 L

BULK

UN number UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL)
Class 3
Packing group III
ERG Number 3L

IMDG**FINISHED GOODS**

UN number UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), Limited Quantity
Class 3
Packing group III
Environmental Hazards
Marine pollutant No.
Transport hazard class(es)
Label(s) Limited Quantity
EmS F-E, S-E
LTD QTY Net Inner Capacity 5.0 L

BULK

UN number UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL)
Class 3
Packing group III

Environmental hazards

Marine pollutant No.
EmS F-E, S-E

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)

ISOPROPYL ALCOHOL (CAS 67-63-0)	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.
ISOPROPYL ALCOHOL	67-63-0	10
P-PHENYLENEDIAMINE	106-50-3	≤ 2
TOLUENE-2,5-DIAMINE	95-70-5	< 2

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

P-PHENYLENEDIAMINE (CAS 106-50-3)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

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

ISOPROPYL ALCOHOL (CAS 67-63-0)	Low priority
RESORCINOL (CAS 108-46-3)	Low priority

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

Issue date 05-14-2019
Revision date 10-28-2019
Version # 02
NFPA ratings Health: 3
 Flammability: 2
 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 This document has undergone significant changes and should be reviewed in its entirety.