Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date:

: Not classified

2017.3.31

Page 1 of 11

Section 1: Identification

1.1 Product identification

Product identifier : Mixture

Product name : PROMASTER G Creyell 10NB [Cream Colorant]

Product code : Not available

Recommended uses : Cosmetics – Hair Coloring Product

Restrictions on uses : No information available

1.2 Identification of company

Manufacturer/Supplier name : Hoyu America Co.

Division

Address : 6265 Phyllis Drive Cypress, CA 90630 US

Telephone number : 714-230-3000
FAX number : 714-230-3060
E-mail : info@hoyu-usa.com
1.3 Emergency telephone number : 1-800-848-4980

1.4 Reference number

Section 2: Hazard Identification

2.1 Classification of the substance or mixture

2.1.1 Physico-Chemical hazard

2.1.2 Health Hazard

Acute Toxicity (oral) Not classified Skin Corrosion/Irritation Category 2 Serious Eye Damage/Eye Irritation Category 1 Skin Sensitization Not classified Reproductive Toxicity Not classified Specific Target Organ Toxicity (single exposure) Category 2 Specific Target Organ Toxicity (repeated exposure) Category 2 Aspiration Hazard Not classified

2.1.3 Environmental Hazard

Hazardous to the Aquatic Environment (acute)

* For those not listed on "2.1 Classification of the Substance or Mixture" are either "Not Applicable" or "Classification not Possible."

* Hazard identification is made according to the 2012 OSHA communication Standard (29 CFR 1910.1210) and GHS rev. 6.

2.2 Label Element

Hazard Pictograms



Signal Word : Danger

Hazard Statement : H315 Causes skin irritation.

H318 Causes serious eye damage.

H371 May cause damage to organs, respiratory tract,

central nervous system.

H373 May cause damage to organs, systemic

toxicity, through prolonged or repeated

exposure.

Precautionary Statement

General Precautions : -

Preventions : P260 Do not breathe dusts /fume /gas /mist /vapors /

spray.

P264 Wash face, hands and any exposed skin

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 2 of 11

thoroughly after handling.

Do not eat, drink or smoke when using this P270

product.

P280 Wear protective gloves/protective clothing/eye

protection/face protection.

IN ON SKIN: Wash with plenty of water and Responses P302+P352

P305+P351+P338 IF IN EYES: Rinse cautiously with water for

> several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON

CENTER/doctor.

P310 Immediately call a POISON CENTER/doctor. P314

Get medical advice/attention if you feel

unwell.

P321 Specific treatment (see section 4 on this SDS).

P332+P313 If skin irritation occurs: Get medical

advice/attention.

Take off contaminated clothing and wash it P362+P364

before reuse.

Storage P405 Store locked up.

Disposal P501 Dispose of contents/container to an approved

waste disposal plant in accordance with local/regional/national/international

regulations.

2.3 Other hazards

8.89 % of the mixture consists of ingredient(s) of unknown acute toxicity (oral).

Harmful to aquatic life with long lasting effects.

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Use of alcoholic beverages may enhance toxic effects.

Section 3: Composition/Information on Ingredients

3.1 Substance

Chemical Name	CAS No.	Concentration (w/w %)
Not applicable	Not applicable	Not applicable
 Minton		

3.2 Mixtures

Chemical Name	CAS No.	Concentration (w/w %)
AMMONIUM CHLORIDE	12125-02-9	0.1 - 1
AMMONIUM HYDROXIDE	1336-21-6	1 – 5
AMODIMETHICONE	71750-79-3 106842-44-8 68554-54-1	0.1 – 1
BEHENTRIMONIUM CHLORIDE	68607-24-9	0.1 – 1
СЕТЕТН-6	68439-49-6	1 – 5
HEXYLDECANOL	2425-77-6	1 – 5
ISOPROPYL ALCOHOL	67-63-0	0.1 - 1
MINERAL OIL	8042-47-5	1 – 5
PEG-32	25322-68-3	5 – 10
PETROLATUM	8009-03-8	1 – 5
SODIUM LAURETH SULFATE	9004-82-4	0.1 - 1
SODIUM SULFITE	7757-83-7	0.1 - 1

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 3 of 11

p-PHENYLENEDIAMINE	106-50-3	< 0.1
RESORCINOL	108-46-3	0.1 - 1

Section 4 : First-aid Measures

4.1 Description of First Aid Measures

Inhalation : Remove to fresh air. Get medical attention immediately if symptoms occur. Skin Contact : Wash off immediately with soap and plenty of water for at least 15 minutes. May

cause an allergic skin reaction. In the case of skin irritation or allergic reactions

see a physician.

Rinse immediately with plenty of water, also under the eyelids, for at least 15 Eye Contact

> minutes keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area. Seek immediate medical

attention/advice.

Ingestion : Rinse mouth immediately and drink plenty of water. Never give anything by

mouth to an unconscious person. DO NOT induce vomiting. Call a physician.

4.2 Most Important Symptoms/Effects

: Burning sensation, itching, rashes, and/or hives. Burning sensation, itching, rashes, and/or hives. Delayed

4.3 Protection for Person who gives First-Aids

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

4.4 Indication of Immediate Medical Attention and Special Treatment Needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. May cause sensitization of susceptible persons. Treat symptomatically.

Section 5: Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Inappropriate Extinguish Media CAUTION: Use of water spray when fighting fire may be

inefficient.

5.2 Specific Hazards Arising from

the Chemicals

May produce carbon oxides, ammonia and/or nitrogen oxide.

5.3 Special Extinguishing Method Sensitivity to mechanical impact: No

Sensitivity to static discharge: No

Fire-fighter

5.4 Special Protective Actions for : As in any fire, wear self-contained breathing apparatus

pressure-demand, MSHA/NIOSH (approved or equivalent) and

full protective gear.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Protective Equipment : Refer to protective measures listed in Section 7 and 8. Prevent

further leakage or spillage if safe to do so.

Avoid contact with skin, eyes or clothing. Ensure adequate Appropriate Procedure

ventilation. Use personal protective equipment as required.

Emergency Procedure Evacuate personnel to safe areas.

6.2 Environmental Precautions Refer to protective measures listed in Section 7 and 8. Prevent

further leakage or spillage if safe to do so.

6.3 Methods and Materials for Containment and Cleaning up

For Containment : Prevent further leakage or spillage if safe to do so.

For Cleaning up : Soak up with inert absorbent material. Pick up and transfer to

properly labeled containers.

: Not available Other Information

Section 7: Handling and Storage

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 4 of 11

7.1 Precautions for Safe Handling

General Precautions

Use personal protection equipment. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash

before reuse.

General Hygiene

: Do not eat, drink or smoke when using this product.

7.2 Conditions for Safe Storage

General Information

nation : Keep containers tightly closed in a dry, cool and well-ventilated

place. Store locked up. Keep out of the reach of children.

Storage Conditions : Do not store with strong acids, strong oxidizing agents and/or

strong bases.

Other Information : Not available

Section 8: Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
AMMONIUM CHLORIDE	-	-	TWA: 10 mg/m ³ ST: 20 mg/m ³
ISOPROPYL ALCOHOL	TWA: 200 ppm ST: 400 ppm	TWA: 400 ppm (980 mg/m³)	TWA: 400 ppm (980 mg/m³) ST: 500 ppm (1225 mg/m³) IDLH: 2000 ppm [10 %LEL]
MINERAL OIL	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³ ST: 10 mg/m ³ IDLH: 2500 mg/m ³
p-PHENYLENEDIAMINE	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ [skin]	TWA: 0.1 mg/m ³ [skin] IDLH: 25 mg/m ³
RESORCINOL	-	-	TWA: 10 ppm (45 mg/m ³) ST: 20 ppm (90 mg/m ³)

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold limit value.

OSHA PEL: Occupational safety and Health Administration – Permissible Exposure Limits

Immediately Dangerous to Life or Health.

NIOSH IDLH: The National Institute for Occupational Safety and Health – Immediately Dangerous to Life or Health Concentrations.

8.2 Engineering Controls : Showers

Eyewash station Ventilation system

8.3 Individual Protection Measures

Eye/Face Protection : Tight sealing safety goggles.

Skin Protection : Wear protective gloves and protective clothing. Long sleeved

clothing. Impervious gloves.

Respiratory Protection : No protective equipment is needed under normal use conditions.

If exposure limits are exceeded or irritation is experienced,

ventilation and evacuation may be required.

Thermal Hazard : Not available

Other Requirements : Handle in accordance with good industrial hygiene and safety

practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 5 of 11

after handling the products.

Section 9: Physical and Chemical Properties

Physical State : Cream
Color : Milky white
Odor : Characteristic odor

pH : 9.8 - 10.8 pH meter (1% aq. sol.)

Melting/Freezing Point No data available Not known Initial Boiling Point and Boiling Range No data available Not known Flash Point No data available Not known **Evaporation Rate** No data available Not known Flammability (Solid, Gas) No data available Not known Upper/lower Flammability or Explosive No data available Not known

Limits

Vapor Pressure No data available Not known Density No data available Not known Relative Vapor Density No data available Not known Completely soluble in water Solubility Not known Partition Coefficient: n-octanol/water No data available Not known Autoignition temperature No data available Not known Decomposition temperature No data available Not known

Viscosity : 5000 – 30000 mPa·s Type B viscometer

(No. 4 rotor/12 rpm/1 min)

Kinetic viscosity : No data available Not known Particle characteristics : No data available Not known Explosive property : No data available Not known

Oxidizing property : No

VOC contents (%) : No data available
Other Information : No information available

Section 10: Stability and Reactivity

Reactivity : No data available

Chemical Stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions : None under normal processing.

Conditions to Avoid : None known

Incompatible Materials : Oxidative agent and acid materials.

Hazardous Decomposition Products : Carbon oxides, ammonia, and/or nitrogen oxide.

Section 11: Toxicological Information

Information on Toxicological Effects

Acute Toxicity :

AMMONIUM CHLORIDE
AMMONIUM HYDROXIDE
CETETH-6
SODIUM LAURETH
LD50 (oral, rat) = 1410 mg/kg
LD50 (oral, rat) = 350 mg/kg
LD50 (oral, rat) = 1260 mg/kg
LD50 (oral, rat) = 1600 mg/kg

SULFATE

p-PHENYLENEDIAMINE LD50 (oral, rat) = 80 mg/kg

LC50 (inhalation: dusts/mists, rat) = 0.92 mg/L

RESORCINOL LD50 (oral, rat) = 301 mg/kg

Skin Corrosion/Irritation

AMMONIUM HYDROXIDE Corrosive (rabbit, 20 % aq. sol.) (SIDS 2008). AMODIMETHICONE Weak irritant (rabbit, 500 mg/24 hrs.).

BEHENTRIMONIUM Irritant (rabbit, OECD404).

CHLORIDE

CETETH-6 Moderate irritant (rabbit, 500 µL/24hrs., Draize).

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 6 of 11

SODIUM LAURETH

SULFATE

HSDB (2002) reported that there are skin irritation and dryness on human for a prolonged occupational contact and irritation was

observed on skin of guinea pig and rabbit.

p-PHENYLENEDIAMINE

Slightly irritant at 2.5 % and moderately irritant at 10 - 50 % on

rabbit and its PII was 1.4 - 3.4 (BUA 97, 1995).

RESORCINOL

Mild or moderate irritant, PII = 2.8 and 4.4 (rabbit, 24 hrs.) (DFGOT

vol. 20, 2003, CICADs No. 71, 2006).

Serious Eye Damage/Irritation

AMMONIUM CHLORIDE

Mild irritant on rabbit (ACGIH (7th, 2001)), also moderate irritation

was observed 10 minutes. 1 hour, and 24 hours after application, but redness, edema, and/or corneal opacity were recovered within 8 days.

AMMONIUM HYDROXIDE

AMODIMETHICONE BEHENTRIMONIUM

CHLORIDE

CETETH-6

HEXYLDECANOL

ISOPROPYL ALCOHOL

PEG-32 **PETROLATUM**

SODIUM LAURETH **SULFATE**

SODIUM SULFITE

p-PHENYLENEDIAMINE

RESORCINOL

Respiratory or Skin Sensitization

p-PHENYLENEDIAMINE

RESORCINOL

Germ Cell Mutagenicity Carcinogenicity

Reproductive Toxicity

ISOPROPYL ALCOHOL

STOT – Single Exposure AMMONIUM CHLORIDE

AMMONIUM HYDROXIDE

Corrosive (rabbit, 28.5 % aq. sol.) (HSDB (Access on June 2014)). Weak irritant (rabbit).

Risk to cause serious eye damage (rabbit, OECD405).

Moderate irritant (rabbit, 100 µL/24hrs., Draize).

Slightly irritating (rabbit, IUCLID).

Mild to strong irritation (rabbit) (EHC, 1990, SIDS, 2002, PATTY

6th, 2012, and ECETOC TR48, 1998).

Mild irritant (rabbit), but recovered within 24 to 48 hrs.

Slightly irritating (rabbit) (IUCLID, 2000).

Moderate to severe irritant (rabbit, Draize, 24 hrs.) (RTECS, 1997)

and RTECS, 1999). Mild irritant (rabbit).

Slightly irritant (Draize, rabbit) (BUA 97, 1995).

Extremely irritation (rabbit) (ACGIH 7th, 2001, CICADs vol. 71,

2006).

Listed as sensitizing substance at Japan Society for Occupational

Positive ratio = 30 - 70 % (guinea pig, Maximization test) (DFGOT

vol. 20, 2003).

: No information available. : No information available.

Two generation test on rat by oral exposure showed decrease in copulation rate on parent and decrease in weight and increase in death rate (PATTY6th, 2012 and SIDS(2002)).

Oral exposure of 1000 mg/kg bw on rat showed breathing difficulty,

accidia, abnormal posture, and/or stagger symptom (SIDS, 2009). This substance has a respiratory irritation and causes severe irritation and pain on airway mucosa. Also, severe corrosive effects are known

for mouth, throat and stomach by oral route (HSDB, 2014).

There is known neurological effect due to oral and dermal exposure. which normally limited to blurred vision on topically applied region, but severe exposure causes increase in concentration of blood ammonia, attack, coma, Nonspecific diffuse brain disorder, loss in muscle strength, decreased deep tendon reflex, loss of consciousness,

and death (ATSDR, 2004).

ISOPROPYL ALCOHOL This substance showed systematic hazardous effect including the

central nervous depression such as lethargy, coma and respiratory depression, irritation on the alimentary canal, effect on the circulatory system such as blood pressure, body temperature decrease, and abnormal cardiac rhythm (SIDS (2002), EHC 103

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 7 of 11

(1990)).

SODIUM LAURETH

SULFATE p-PHENYLENEDIAMINE Nausea, vomiting and diarrhea are observed by ingestion as human acute toxic symptom (HSDB, 2002).

Ingestion of this substance on human showed breathing difficulty and edema on face, neck, tongue and throat, increase of CPK in blood, hypouresis, renal tubular degeneration and rhabdomyolysis. Then, subject caused acute kidney failure and death (DFGMAK-Doc.6,

RESORCINOL After application of cream contain this substance, human subjects

showed unconsciousness, thrill, spasm, mydriasis, disarray, amnesia, cognitive dysfunction (DFGOT vol. 20, 2003, PATTY 5th. 2001). Also, main symptom of resorcinol poisoning is influence on central nervous system (ACGIH 7th, 2001 and DFGOT vol. 20, 2003).

Furthermore, it showed hemoglobinuria, cyanosis,

methemoglobinemia in infants (DFGOT vol. 20, 2003 and PATTY

5th, 2001).

STOT – Repeated Exposure

AMMONIUM CHLORIDE Ingestion of ammonium chloride for 6 months showed

hospitalization by acidosis (metabolic) due to exhaustion, air hunger, or accelerated respiration and disarray (SIDS 2009, ACGIH 2001). NOAEL = 206 mg/kg bw/day (cow, 112 days) (SIDS, 2009).

BEHENTRIMONIUM CHLORIDE

ISOPROPYL ALCOHOL

Estimated data from main ingredient on digestive tract.

Vapor exposure of this substance on rat for 4 month showed decrease in number of leucocyte at 100 mg/m³, and pathologic effect on organs of respiration such as lung and respiratory tract, liver and

spleen at 500 mg/m³ (EHC 103 (1990)).

Effects on liver and mesenteric node by repeated oral exposure test MINERAL OIL

using rat (IUCLID, 2000) and on lung due to aerosol exposure on rat

(US HPVIS, 2011).

The regular use of retail hair coloring product containing this p-PHENYLENEDIAMINE

substance on humans caused inflammation on liver and spleen and developed progressive neurological disorders for 11 weeks and final death of subject (ACGIH, 2001). Also, the regular use of retail hair coloring product containing this substance showed chronic kidney disorder, uremia, minimization of kidney and death of subject (DFGMAK-Doc.6, 1994). 90 days oral application test on rabbit at 10 mg/kg showed edema, swollen muscle fiber, etc. on myocardium

(ACGIH, 2001).

Aspiration Hazard MINERAL OIL

Inhalation of oil or liquid to ling may cause lipid or chemical

pneumonia and/or lipid granuloma.

SODIUM LAURETH **SULFATE**

There is a report on causing edema on upper respiratory tract and breathing difficulties on human due to inhalation (HSDB, 2002).

Information on the Likely Routes of Exposure

Inhalation

Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Specific test data for the substance or mixture is not

available. Expected to be an irritant based on components. Severely irritating to eyes. Cause serious eye damage. May

cause burns. May cause irreversible damage to eyes.

Specific test data for the substance or mixture is not available. Ingestion may cause irritation based on

components. Irritating to skin. Prolonged contact may cause

redness and irritation.

Skin contact

Eye contact

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 8 of 11

Ingestion : Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation,

nausea, vomiting and diarrhea. May be harmful if

swallowed (based on components).

Symptoms related to the Physical, : Erythema (skin redness). May cause redness and tearing of the eyes. May cause blindness. Burning, itching, rushes

Characteristics and/or hives.

Delayed, Immediate, and Chronic Effects : May cause sensitization of susceptible persons. May cause from Short and Long Term Exposure : sensitization by skin contact.

Carcinogenicity : The table below indicates whether each agency has listed

any ingredient as carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
ISOPROPYL ALCOHOL	A4	Group 3	-	-
MINERAL OIL	-	Group 3	-	-
p-PHENYLENEDIAMINE	A4	Group 3	-	-
RESORCINOL	A4	Group 3	-	-

ACGIH: A1 – Confirmed human carcinogen, A2 – Suspected human carcinogen, A3 – Confirmed animal carcinogen with unknown relevance to humans, A4 – Not classifiable as a human carcinogen, A5 – Not suspected as a human carcinogen

IARC: International Agency for Research and Cancer (Group 1 – Carcinogenic to humans, Group 2A – Probably Carcinogenic to humans, Group 2B – Possibly carcinogenic to humans, Group 3 – Not classifiable as to carcinogenicity in humans, Group 4 – Probably not carcinogenic to humans)

NTP: National Toxicology Program (NA = none assigned, Known = Known to be a human carcinogen,

RAHC = Reasonably anticipated to be a human carcinogen)

Other Information : No information available.

Section 12: Ecological Information

Toxicity on Aquatic Organisms :

AMMONIUM CHLORIDE LC50 (Lepomis macrochirus, 96 hrs.) = 74.2 mg/L (ECETOC TR91,

2003)

AMMONIUM HYDROXIDE LC50 (Mysidopsis bahia, 96 hrs.) = 2.81 - 98.9 mg total NH₃/L (SIDS,

2007

BEHENTRIMONIUM LC50 (Danio rerio, 96 hrs., OECD 203) = 0.5 mg/L

CHLORIDE EC50 (Daphnia magna, 21 days, OECD 211) = 0.13 mg/L

EC50 (Desmodesmus subspicatus, 72 hrs., OECD 201) = 3.4 mg/L NOEC (Artificial soil, 54 days, Eisenia foetida, OECD 222) = 250 mg/kg NOEC (Bottom sediment DW, Lubriculus variegatus, 28 days, OECD

225) = 169 mg/kg

SODIUM LAURETH EC50 (Ceriodaphnia quadrangular, 48 hrs.) = 3.12 mg/L (AQUIRE,

SULFATE 2008)

p-PHENYLENEDIAMINE LC50 (Oryzias latipes, 96 hrs.) = 0.066 mg/L

NOEC (Daphnia magna, 21 days) = 0.043 mg/L EC50 (Daphnia magna, 48 hrs.) = 1.28 mg/L

RESORCINOL EC50 (Daphnia magna, 48 hrs.) = 1.28 mg Toxicity on Terrestrial Organisms : No information available.

Persistence and Degradability :

BEHENTRIMONIUM 80 % (28 days, OECD 301B)

CHLORIDE

MINERAL OIL Persistent (IUCLID, 2000)

SODIUM LAURETH Acute environmental toxicity was classified as category 2 and there are

SULFATE no rapid degradability reported.

p-PHENYLENEDIAMINE BOD = 5 %

Bioaccumulative Potential

BEHENTRIMONIUM Low

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 9 of 11

CHLORIDE $\log \text{Koc} = 3 - 5.7$

Log Pow < 3

MINERAL OIL Log Pow > 6 (IUCLID, 2000)

Mobility in Soil : No information available.

Other Adverse Effects : No information available.

Section 13: Disposal Considerations

Product/Packaging Disposal : This material, as supplied, is not a hazardous waste

according to Federal regulation (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local

regulations for additional requirements.

Waste Treatment-Relevant Information Sewage Disposal-Relevant Information No information available.No information available.

Other Disposal Recommendation : Dispose of contents/containers in accordance with local

regulation (refer to Section 15).

Section 14: Transport Information

	DOT	IATA/ICAO	IMDG/IMO
UN Number			
UN Proper Shipping Name	Not Dogulated	Mat Dagulatad	N 4 D 1 4 1
Transport Hazard Classes	Not Regulated	Not Regulated	Not Regulated
Packing Group			

DOT: US Department of Transportation

IATA/ICAO: International Air Transport Association/International Civil Aviation Organization IMDG/IMO: International Maritime Dangerous Goods/International Maritime Organization

Environmental Hazards : No information available.

Special Precautions for User : No information available.

Transport in Bulk According to ANNEX : No information available.

II of MARPOL 73/78 and IBC Code

Section 15: Regulatory Information

Safety, Health, and Environmental Regulations Specific for the Product

International chemical inventories

Toxic substances control act (TSCA) : All components of this product are either listed or are

exempt on the TSCA inventory.Substances comply or are exempt.

Domestic Substance list (DSL)

US Federal Regulation

Title III of the Superfund Amendments

and Reauthorization act of 1986

(SARA 313)

: Section 313 of Title III of the Superfund Amendments and Reauthorization act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the act and title 40 of the Code of Federal

Regulations (CFR), Part 372.

Chemical Name	SARA 313 – Threshold values (%)
AMMONIUM CHLORIDE	1.0 as ammonia
AMMONIUM HYDROXIDE	1.0 as ammonia
ISOPROPYL ALCOHOL	1.0
p-PHENYLENEDIAMINE	1.0

SARA 311/312 Hazard Category : Acute health hazard No Chronic health hazard No

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 10 of 11

Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

Clean Water Act (CWA) : This product contains the substances which are regulated as

pollutant pursuant to the Clean Water Act (40 CFR 122).

Clean Air Act (CAA) : This product contains the substances which are regulated as

pollutant pursuant to the Clean Air Act (40 CFR 50 - 99).

Comprehensive Environmental Response Compensation and Liability

Act (CERCLA)

: This material, as supplied, contains one or more substances regulated as hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (40 CFR 302).

Hazardous Substance	Statutory Code*	RCRA Waste No.	Final RQ Pounds
AMMONIUM CHLORIDE	1	-	5000 lb (2270 kg)
AMMONIUM HYDROXIDE	1	-	1000 lb (454 kg)
p-PHENYLENEDIAMINE	3	-	5000 lb (2270 kg)
RESORCINOL	1,4	U201	5000 lb (2270 kg)

^{*} According to 40 CFR 302, The "Statutory Code" column indicates the statutory source for designating each substance as a CERCLA hazardous substance:

US State Regulations

California Hazardous Waste Code : 135 (unspecified aqueous solution)

This product contains one or more substances that are listed with the state of California as hazardous waste.

Chemical Name	California Hazardous Waste Code
AMMONIUM HYDROXIDE	X, C
ISOPROPYL ALCOHOL	X, I
p-PHENYLENEDIAMINE	X

California Hazardous Waste Code: X – Toxic, C – Corrosive, I – Ignitable, R - reactive

California Proposition 65 : This product does not contain any Proposition 65 chemicals.

US State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
AMMONIUM CHLORIDE	X	X	X	X	X
AMMONIUM HYDROXIDE	X	X	X	-	X
ISOPROPYL ALCOHOL	X	X	X	X	-
MINERAL OIL	X	X	X	X	-
p-PHENYLENEDIAMINE	X	X	X	X (Skin)	X
RESORCINOL	X	X	X	X	X

Section 16: Other Information

NFPA (National Fire Protection	: Health hazard	3
Association Code)	Flammability hazard	0
	Instability hazard	0
	Special hazards	COR
HMIS (Hazardous Materials	: Health	3
Identification System)	Flammability	0
	Physical hazard	0
	Personal protection	X

Reference

1. Globally Harmonized System of Classification and Labeling of Chemicals Revision 5, 2013

[&]quot;1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act,

[&]quot;2" indicates that the source is section 307(a) of the Clean Water Act,

[&]quot;3" indicates that the source is section 112 of the Clean Air Act, and

[&]quot;4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA).

Ref. No.: Ver. 1

Safety Data Sheet

Issue Date: Revised Date: 2017.3.31

Page 11 of 11

- 2. National Institute of Technology and Evaluation (http://www.nite.go.jp/en/index.html)
- 3. SDS provided from raw material manufactures
- 4. United States Code (http://uscode.house.gov/browse.xhtml)
 - a) Title 21 Food and Drugs Chapter 9 Federal Food, Drug, and Cosmetic Act
 - b) Title 33 Navigation and Navigable Waters Chapter 26 Water Pollution Prevention and Control
 - c) Title 42 The Public Health and Welfare Chapter 85 Air Pollution Prevention and Control
 - d) Title 42 The Public Health and Welfare Chapter 103—Comprehensive Environmental Response, Compensation, and Liability
- 5. Code of Federal Regulation (https://www.gpo.gov/)
 - a) 21 CFR parts 700 799 Cosmetics
 - b) 40 CFR Protection of Environment
- 6. US Right-to-Know Regulation
 - a) New Jersey administrative code Title 8 Health Chapter 59 Work and community right to know act rules Appendix A and B
 - b) New Jersey Register Volume 42, Issue 15, 42 N.J.R. 1709(a), August 2, 2010
 - c) Code of Massachusetts Regulations 105 CMR 670.000 Right to know
 - d) The Pennsylvania Code Title 34 Labor and Industry Chapter 323 Hazardous Substance List
 - e) State of Rhode Island General Laws Chapter 28-21 Hazardous Substances Right-to-Know Act
 - f) Rhode Island Hazardous Substance List (http://www.dlt.ri.gov/occusafe/pdfs/HazardousABC.pdf)
 - g) Illinois Chemical Safety Act (430 ILCS 45)
 - h) Hazardous Materials Emergency Act (430 ILCS 50)
 - i) Illinois Emergency Planning and Community Right to Know Act (430 ILCS 100)
- 7. Domestic Substance List (http://www.ec.gc.ca/LCPE-CEPA/default.asp?lang=En&n=5F213FA8-1)
- 8. TSCA Chemical Substance Inventory (https://www.epa.gov/tsca-inventory)
- 9. International Agency for Research on Cancer (http://www.iarc.fr/)
- 10. American Conference of Governmental Industrial Hygienists (http://www.acgih.org/)
- 11. US Environmental Protection Agency (https://www3.epa.gov/)
- 12. US Department of Labor, Occupational Safety and Health Administration (https://www.osha.gov/)
- 13. The National Institute for Occupational Safety and Health (http://www.cdc.gov/niosh/about/default.html)
- 14. US Department of Health and Human Services, National Toxicology Program (https://ntp.niehs.nih.gov/)
- 15. US Department of Transportation (https://www.transportation.gov/)
- 16. International Air Transport Association (http://www.iata.org/Pages/default.aspx)
- 17. International Civil Aviation Organization (http://www.icao.int/Pages/default.aspx
- 18. International Maritime Organization (http://www.imo.org/en/Publications/IMDGCode/Pages/Default.aspx)
- 19. California Environmental Protection Agency (http://oehha.ca.gov/)
- 20. National Fire Protection Association (http://www.nfpa.org/)

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