Safety Data Sheet
acc. to OSHA HCS

Print Date 01/28/2016 Revision Date 01/28/2016

· **Product Identifier**
· **Trade Name: EP1340 B**
· **Application of the Substance or Mixture:** Epoxy Hardener

· **Details of the Supplier of the Safety Data Sheet (SDS)**
· **Manufacturer or Supplier:**
Resinlab, LLC
N109 W13300 Ellsworth Drive,
Germantown, WI 53022
1-800-388-8605
www.resinlab.com
· **Information Department:** Product Safety Department: msds@resinlab.com
· **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

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2 Hazard(s) identification

· **Hazard Classification**
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.

· **Label Elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Pictogram(s)**

GHS05 GHS07 GHS08

· **Signal Word** Danger

· **Hazard-determining Component(s)**
4-Nonylphenol, branched
Poly(oxypropylene)diamine
Bisphenol A
N-(2-Aminoethyl)piperazine
Benzyl alcohol
· **Hazard statements**
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.

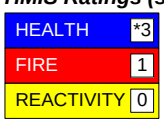
· **Precautionary statements**
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Do not handle until all safety precautions have been read and understood.
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.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If swallowed: Rinse mouth. Do NOT induce vomiting.
Collect spillage.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazard Rating System**
· **NFPA System**
· **NFPA Ratings (scale 0 - 4)**

Health = 3
Fire = 1
Reactivity = 0

NFPA special hazards (water reactivity and oxidizing property): None

· **HMIS System**
· **HMIS Ratings (scale 0 - 4)**



Health = *3
Fire = 1
Reactivity = 0

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· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical Characterization: Mixtures**

· **Composition/Information on Ingredients**		
CAS: 84852-15-3 EINECS: 284-625-5 Index Number: 601-053-00-8	4-Nonylphenol, branched Repr. 2, H361 Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Chronic 1, H410 Acute Tox. 4, H302	10-20%
	Polyamide CAS not available per 29CFR1910.1200(i) Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	10-20%
	Organophosphorous salt Combustible Dust	10-20%
CAS: 9046-10-0	Poly(oxypropylene)diamine Skin Corr. 1C, H314; Eye Dam. 1, H318 Aquatic Chronic 2, H411 Aquatic Acute 3, H402	10-20%
CAS: 80-05-7 EINECS: 201-245-8 Index Number: 604-030-00-0 RTECS: SL 6300000	Bisphenol A Repr. 2, H361 Eye Dam. 1, H318 Skin Sens. 1, H317; STOT SE 3, H335	5-<10%
CAS: 140-31-8 EINECS: 205-411-0 Index Number: 612-105-00-4 RTECS: TK 8050000	N-(2-Aminoethyl)piperazine Acute Tox. 3, H311 Skin Corr. 1B, H314 Acute Tox. 4, H302; Skin Sens. 1, H317 Aquatic Chronic 3, H412	5-<10%
	Amino ether -CAS withheld per 29CFR1910.1200(i). Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	1-2.5%
CAS: 100-51-6 EINECS: 202-859-9 Index Number: 603-057-00-5 RTECS: DN 3150000	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2A, H319 Aquatic Acute 2, H401	0.1-1%
CAS: 103-83-3 EINECS: 203-149-1 Index Number: 612-074-00-7 RTECS: DP 4500000	Benzyldimethylamine Flam. Liq. 3, H226 Acute Tox. 3, H301 Skin Corr. 1B, H314; Eye Dam. 1, H318 Aquatic Chronic 2, H411 Acute Tox. 4, H312; Acute Tox. 4, H332	0.1-<1%
CAS: 71-36-3 EINECS: 200-751-6 Index Number: 603-004-00-6 RTECS: EO 1400000	1-Butyl alcohol Flam. Liq. 3, H226 Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	0-<0.1%

· **Classification System:**
The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12.
· **Additional Information:**
If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

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4 First-aid measures

· **Description of First Aid Measures**
· **General Information**
Ensure medical personnel are aware of exposure and take precautions for their personal protection; see Section 8 for the information of personal protection.

· **After Inhalation**
Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
Consult a physician after significant exposure.
In case of unconsciousness place patient stably in side position for transportation.

· **After Skin Contact**
Immediately remove all contaminated clothing and put them in a tightly sealed bag.
Immediately wash contaminated skin with water and soap and rinse them thoroughly.
Get medical attention

· **After Eye Contact**
Immediately rinse opened eyes for at least 15 minutes under running water.
Immediately remove contact lenses if present. Continue rinsing.
Seek medical advice.

· **After Swallowing**
If victim is unconscious; never give anything by mouth.

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If victim is conscious; rinse out mouth and give victim small amounts of water.
Do NOT induce vomiting.
Get medical attention

· ***Additional Information***
For additional information, please consult the corresponding first aid measures in the most current version of Emergency Response Guidebook which is produced by the US Department of Transportation.

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5 Fire-fighting measures

· ***Extinguishing Media***
· ***Suitable Extinguishing Agent(s)***
Use fire fighting measures and extinguishing agents that suit the environment.
In case of fire, suitable extinguishing agents are:
Alcohol resistant foam.
Dry chemical or fire-extinguishing powder.
Carbon dioxide (CO_2).
Water spray or water fog.
· ***Unsuitable Extinguishing Agent(s)*** *Water with full jet*

· ***Firefighting Procedures***
Isolate fire and deny unnecessary entry.
Eliminate all ignition sources if safe to do so.
Do not extinguish fire unless flow can be stopped.
Fight fire remotely due to the risk of explosion.
Use water spray or water fog to cool fire-exposed containers.
Runoff from fire control or dilution water may be corrosive and/or toxic; protect personnel and minimize property damage.
Contain fire water runoff if possible to prevent environmental pollution.

· ***Special Hazards Arising in Fire***
Will not burn unless preheated.
In case of fire, following can be released:
Carbon dioxide (CO_2) and Carbon monoxide (CO)
Nitrogen oxides
Silicon oxide (SiO_2)
Titanium oxides
Aluminum oxide (Al_2O_3) dust, a serious respiratory irritant, may be formed during fires.
Iron oxides
Phosphorus oxide (P_2O_5)

· ***Advice for Firefighters***
If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

· ***Additional Information*** *Ensure adequate and functional fire fighting facilities equipped in working area at all times.*

*
6 Accidental release measures

· ***Personal Precautions***
Do not touch damaged containers or spills unless wearing appropriate protective equipment.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.
Ensure personnel take precautions for their personal protection during clean up; see Section 8 for the specific requirements.

· ***Environmental Precautions***
Keep away from sewage system or other water courses; do not penetrate ground/soil.
Inform respective authorities in case of any seepage to the environment.

· ***Cleaning Up Methods***
Ensure adequate ventilation.
Eliminate all ignition sources.
Keep unauthorized personnel away.
Allow molten product to cool.
Absorb residues with liquid-binding materials.
Ventilate and wash area after clean-up is complete.
Collect spills in suitable and properly labeled containers.
Do not use solvents unless following safe handling practices and within the recommended exposure guidelines.
Dispose contaminated chemicals as waste according to Section 13.

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7 Handling and storage

· ***Handling***
· ***Precautions for Safe Handling***
Avoid any body contact of containers or contents unless wearing appropriate personal protective equipment.
Keep away from incompatible material(s).
Avoid any release into the environment.
For industrial or professional use only
Observe all the personal protection requirements in Section 8.
· ***Information about Protection Against Explosions and Fires***
Will not burn unless preheated.

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Keep away from heat, sparks, open flame and other ignition sources during handling.
Be prepared with respirators.

· **Storage**
· **Requirements to be Met by Storerooms and Receptacles**
Store in a well-ventilated place; provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.
· **Information about Storage in One Common Storage Facility**
Store away from incompatible material(s).
Store away from foodstuffs.
Avoid release to the environment.

· **Additional Information** No further relevant information.

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8 Exposure controls/personal protection

· **Engineering Measures or Controls**

· **Exposure Limit Values that Require Monitoring at the Workplace**	
84852-15-3 4-Nonylphenol, branched	
TEEL-1	Short-term value: 20 mg/m³
TEEL-2	Short-term value: 125 mg/m³
TEEL-3	Short-term value: 500 mg/m³
140-31-8 N-(2-Aminoethyl)piperazine	
TEEL-1	Short-term value: 7.5 mg/m³
TEEL-2	Short-term value: 50.0 mg/m³
TEEL-3	Short-term value: 500 mg/m³
100-51-6 Benzyl alcohol	
TEEL-1	Short-term value: 260 mg/m³, 60.0 ppm
TEEL-2	Short-term value: 660 mg/m³, 150.0 ppm
TEEL-3	Short-term value: 660 mg/m³, 150.0 ppm
WEEL	Long-term value: 10 ppm
103-83-3 Benzyldimethylamine	
TEEL-1	Short-term value: 3.0 mg/m³
TEEL-2	Short-term value: 20.0 mg/m³
TEEL-3	Short-term value: 200.0 mg/m³
71-36-3 1-Butyl alcohol	
PEL	Long-term value: 300 mg/m³, 100 ppm
REL	Ceiling limit value: 150 mg/m³, 50 ppm Skin
TLV	Long-term value: 61 mg/m³, 20 ppm

· **Other Engineering Measures or Controls**
Ventilation rates should be matched to conditions.
If applicable, use process enclosure(s), local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

· **Personal Protective**
· **General Protective and Hygienic Measures**
Pregnant women should strictly avoid inhalation and skin contact.
Avoid any contact with skin or eye.
Do not eat, drink or smoke during work.
Clean hands and exposed skin thoroughly after work and before breaks.

· **Personal Protective Equipment (PPE)**
· **Breathing Equipment**
Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.
Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator.
Observe OSHA regulations (29CFR 1910.134) for respirator use.
· **Hand Protection**
Selection of glove material should take into consideration the penetration times, rates of diffusion, and the degradation.
Suggested glove type(s):
Nitrile Gloves
Butyl Rubber Gloves
· **Eye Protection**
tightly sealed goggles
tightly sealed goggles and face shields if the potential for splashing occurs.
· **Body Protection** Chemical resistant apron; cover exposed skin.

· **Additional Information**
All protective clothing (suits, gloves, footwear, headgear) should be clean, available every day, and put on before work.

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The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

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9 Physical and chemical properties

· **Information on Basic Physical and Chemical Properties**

· **Appearance:**	
· **Form:**	Liquid
· **Color:**	Cream
· **Odor:**	Amine-like
· **Odor Threshold:**	Not determined.
· **PH-Value at 20 °C (68 °F):**	>10.5
· **Change in Condition:**	
· **Melting Point:**	Not determined.
· **Boiling Point:**	Not determined.
· **Flash Point:**	> 93 °C (> 199 °F)
· **Decomposition Temperature:**	Not determined.
· **Flammability:**	Not determined.
· **Explosion:**	Not determined.
· **Explosion Limits:**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Vapor Pressure:**	Not determined.
· **Vapor Density:**	not determined
· **Density at 25 °C (77 °F):**	1.23 g/cm³ (10.264 lbs/gal)
· **Solubility in or Miscibility with**	
· **Water:**	Partially miscible.
· **Segregation coefficient LogPow (n-octanol/water):**	Not determined.
· **Viscosity:**	
· **Dynamic at 20 °C (68 °F):**	14000 mPas
· **Kinematic:**	Not determined.
· **Additional Information**	No further relevant information.

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10 Stability and reactivity

· **Physical Hazard(s)** Not a regulated reactive or physical hazard under GHS.

· **Hazardous Reactivity and Chemical Stability** Stable under normal conditions of use, storage and temperatures.

· **Thermal Decomposition and Conditions to be Avoided**
Keep away from incompatible material(s).
Thermally decomposes during fire or high heat; keep away from heat, sparks, open flame and other ignition sources.

· **Possibility of Other Hazardous Reaction(s)** May react with strong reducing agents generating flammable hydrogen (H_2).

· **Incompatible Material(s)**
hydroxyl or active hydrogen compounds
metal or metallic compounds
Oxidizing agents
Isocyanates
Aldehydes
Chloroformates
Acids
Chlorinated rubber

· **Hazardous Decomposition Product(s)**
Ammonia (NH_3) and/or Amines.
Thermally decomposes during fire or very high heat. See Section 5 for fire hazards evolved during thermal decomposition.

· **Hazardous Polymerization Product(s)** No relevant information.

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11 Toxicological information

· **Acute Toxicity**

· **Oral**		
21645-51-2 Aluminum hydroxide		
Oral	LD50	(rat) (LD0(OECD TG 401)>5000mg/kg: no death occurred) No mortality was observed after a single oral administration with 5000 mg/kg of the substance. Reference: ECHA (2011) and IUCLID Dataset (2000).
84852-15-3 4-Nonylphenol, branched		
Oral	LD50	1604 mg/kg (rat) Reference: Vendor SDS (2015)

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Organophosphorous salt		
Oral	LD50	> 2000 mg/kg (rat) (OECD TG 401) Reference: Vendor (M)SDS (2005).
9046-10-0 Poly(oxypropylene)diamine		
Oral	LD50	2885 mg/kg (rat) (similar to OECD guideline 401) Reference: Vendor SDS (2015).
80-05-7 Bisphenol A		
Oral	LD50	3300 mg/kg (Rats and Mice) Reference: IUCLID Dataset (2000) and ECHA (2011).
140-31-8 N-(2-Aminoethyl)piperazine		
Oral	LD50	2140 mg/kg (rat) Vendor SDS (2015)
92704-41-1 Calcined Kaolin		
Oral	LD50	> 5000 mg/kg (rat) Reference: ECHA (2011).
Amino ether -CAS withheld per 29CFR1910.1200(i).		
Oral	LD50	4310 mg/kg (rat)
103-83-3 Benzyldimethylamine		
Oral	LD50	265 mg/kg (rat) Reference: Sigma Aldrich

· **Potential Health Effect(s):**
If swallowed, may cause:
diarrhea
shock or collapse
cramps
abnormal pain, headache, nausea, vomiting, drowsiness
See acute inhalative effect(s) for further information

· **Dermal**		
21645-51-2 Aluminum hydroxide		
Dermal	LD50	(Test species: n/a) (Toxicity not expected based on acute oral data)
84852-15-3 4-Nonylphenol, branched		
Dermal	LD50	2031 mg/kg (rabbit) Vendor SDS 2015
Organophosphorous salt		
Dermal	LD50	> 2000 mg/kg (rat) (OECD TG 402; female rats) Reference: Vendor (M)SDS (2005).
9046-10-0 Poly(oxypropylene)diamine		
Dermal	LD50	2980 mg/kg (rabbit) (similar to OECD guideline 402) Reference: Vendor SDS (2015).
80-05-7 Bisphenol A		
Dermal	LD50	3000 mg/kg (rabbit) (3 out of 15 treated rabbits died at 2000 mg/kg) Reference: IUCLID Dataset (2000).
140-31-8 N-(2-Aminoethyl)piperazine		
Dermal	LD50	866 mg/kg (rabbit) Reference: OECD SIDS (2005).
92704-41-1 Calcined Kaolin		
Dermal	LD50	> 5000 mg/kg (rat) Reference: ECHA (2011).
Amino ether -CAS withheld per 29CFR1910.1200(i).		
Dermal	LD50	2510 mg/kg (rat)
103-83-3 Benzyldimethylamine		
Dermal	LD50	1660 mg/kg (rabbit) Behavioral: Tremors/Excitement Reference: Sigma Aldrich

· **Potential Health Effect(s):**
No further relevant information available; classification is not possible.
See acute inhalative effect(s) for further information.

· **Inhalative**		
21645-51-2 Aluminum hydroxide		
Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected as a wetted form) Due to wetted form, inhalative effects of the substance can be seen as negligible.
84852-15-3 4-Nonylphenol, branched		
Inhalative	LC50/4 h	(mouse) (Non-toxic; LC50 exceeded the satured vapor value) . The substance was not classified as an acute inhalative hazard under its regular use. Reference: IUCLID Dataset (2000).
Organophosphorous salt		
Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not anticipated as a wetted form) Due to the wetted form, inhalative effects of the substance can be seen as negligible.

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9046-10-0 Poly(oxypropylene)diamine		
Inhalative	LC50/4 h	no mortality mg/l (rat) (Exposure Time 8h) No mortality was observed over an 8 hour exposure period. Reference: Vendor SDS 2015
80-05-7 Bisphenol A		
Inhalative	LC50/4 h	(rat) (LC0 > 0.17 mg/l: no death occurred) Reference: ECHA (2011).
140-31-8 N-(2-Aminoethyl)piperazine		
Inhalative	LC50/4 h	(rat) (No mortality observed at saturated atmosphere) Reference: OECD SIDS (2005).
92704-41-1 Calcined Kaolin		
Inhalative	LC50/4 h	(Test species: n/a) Due to the wetted form, inhalative effects of the substance can be seen as negligible
103-83-3 Benzyldimethylamine		
Inhalative	LC50/4 h	2.05 mg/l (rat) (All animals died at 500ppm group) Calculation was based on all death of rats in 500 ppm (2721 mg/m³) group and no death in all other groups.Reference: ECHA (2011).

· **Potential Health Effect(s):**
While not possible to classify the acute inhalative hazard due to missing data, the product may cause the following symptom(s):
nasal discharge
sneezing
sore throat
diarrhea
cough, headache, nausea, shortness of breath, vomiting, and wheezing

· **Skin Corrosion or Irritation**	
21645-51-2 Aluminum hydroxide	
Corrosion/Irritation	not irritating (rabbit) (OECD TG 404; semiocclusive; 4hr-contact; undiluted)
84852-15-3 4-Nonylphenol, branched	
Corrosion/Irritation	corrosive (rabbit) (Directive 84/449/EEC B4; Post-exposure: 8 days) All tested animals showed signs of erythema, edema, and eschar which were not fully reversible within 8 days.Reference: IUCLID Dataset (2000).
Polyamide CAS not available per 29CFR1910.1200(i)	
Corrosion/Irritation	moderate (Test species: n/a)
Organophosphorous salt	
Corrosion/Irritation	not irritating (rabbit) (test detail not available) The substance was not irritating to rabbit skin. Reference: Vendor (M)SDS (2005).
9046-10-0 Poly(oxypropylene)diamine	
Corrosion/Irritation	corrosive (rabbit) (similar to OECD guideline 404) Reference: Vendor SDS 2015
80-05-7 Bisphenol A	
Corrosion/Irritation	not irritating (rabbit) The substance was not classified as irritating to skin.Reference: ECHA (2011).
140-31-8 N-(2-Aminoethyl)piperazine	
Corrosion/Irritation	corrosive (rabbit) (US DOT Corrosivity Assay) The substance was classified as corrosive to rabbit skin (Category 1). Reference: OECD SIDS (2005).
92704-41-1 Calcined Kaolin	
Corrosion/Irritation	not irritating (rabbit) Reference: ECHA (2011).
103-83-3 Benzyldimethylamine	
Corrosion/Irritation	corrosive (rabbit) (OECD TG 404) Reference: ECHA (2011).

· **Potential Health Effect(s):**
Causes severe skin burns and eye damage.
In contact with skin, may cause:
redness, pain and severe skin burns

· **Eye Serious Damage or Irritation**	
21645-51-2 Aluminum hydroxide	
Damage/Irritation	not irritating (rabbit) No eye irritation to rabbit eyes OECD Test Guideline 405
84852-15-3 4-Nonylphenol, branched	
Damage/Irritation	serious irrit. (rabbit) (Draize Test) The substance was classified as a serious eye irritant (Category 1).Reference: IUCLID Dataset (2000).
Polyamide CAS not available per 29CFR1910.1200(i)	
Damage/Irritation	moderate (Test species: n/a)
Organophosphorous salt	
Damage/Irritation	slight effect (rabbit) (OECD Guideline 405) Does not require labelling.
9046-10-0 Poly(oxypropylene)diamine	
Damage/Irritation	serious damage (rabbit) (similar to OECD Guideline 405) Reference: Vendor SDS 2015.

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80-05-7 Bisphenol A		
Damage/Irritation	serious damage (rabbit) (OECD TG 405) The substance was classified as a serious eye irritant (Category 1) based on the classification criteria.Reference: ECHA (2011).	
140-31-8 N-(2-Aminoethyl)piperazine		
Damage/Irritation	serious damage (rabbit) Neat substance applied to rabbit eyes caused extensive irritation in the conjunctiva and cornea, which most likely resulted in permanent blindness. Reference: OECD SIDS (2005).	
92704-41-1 Calcined Kaolin		
Damage/Irritation	(rabbit) Thus, the substance was not irritating to rabbit eyes based on the classification criteria.Reference: ECHA (2011).	
103-83-3 Benzyldimethylamine		
Damage/Irritation	serious damage (rabbit) (Irreversible corneal damage after a 0.5% dose) Reference: ECHA (2011).	

· **Potential Health Effect(s):**
Causes serious eye damage.
In contact with eye, may cause:
decrease or loss of vision
redness, pain and severe deep burns

· **Respiratory or Skin Sensitization**

21645-51-2 Aluminum hydroxide		
Sensitization	Skin	not sensitizing (guinea pig) (OECD TG 406; intradermal and epicutaneous) Skin sensitizing reaction was not observed; the substance was not classified as a skin sensitizer.Reference: ECHA (2011).
	Respiratory	(No data available) Due to wetted form, inhalative effects of the substance can be seen as negligible.
84852-15-3 4-Nonylphenol, branched		
Sensitization	Skin	not sensitizing (guinea pig) (Buehler test with OECD TG 406) Guinea pig maximization test - negative Reference: IUCLID Dataset (2000).
	Respiratory	(No data available)
Organophosphorous salt		
Sensitization	Skin	non sensitizing (guinea pig) (OECD Test Guideline 406)
	Respiratory	(No data available)
9046-10-0 Poly(oxypropylene)diamine		
	Respiratory	(No data available)
80-05-7 Bisphenol A		
Sensitization	Skin	sensitizing (Human) (Patch Test) For safety reasons, the substance was classified as a dermal sensitizer (Category 1).Reference: ECHA (2011) and IUCLID Dataset (2000).
	Respiratory	(No data available)
140-31-8 N-(2-Aminoethyl)piperazine		
Sensitization	Skin	sensitizing (guinea pig) (OECD TG 406) 5 out of 20 guinea pigs showed positive responses in the maximization tests. For safety reason, the substance was classified as a skin sensitizer (Category 1).Reference: OECD SIDS (2005).
	Respiratory	(No data available)
92704-41-1 Calcined Kaolin		
Sensitization	Skin	not sensitizing (mouse) (OECD TG 429; Read-across from 1335-30-4) Reference: ECHA (2011).
	Respiratory	(Test species: n/a) Due to the wetted form, inhalative effects of the substance can be seen as negligible.
103-83-3 Benzyldimethylamine		
Sensitization	Skin	not sensitizing (guinea pig) (OECD TG 406) Reference: ECHA (2011).
	Respiratory	(No data available)

· **Potential Health Effect(s):**
May cause an allergic skin reaction.
Repeated skin contact may cause dermatitis, skin rash or itchiness.
No relevant information for respiratory sensitization; classification is not possible.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Germ Cell Mutagenicity**

21645-51-2 Aluminum hydroxide	
Mutagenicity	negative (rat) Mouse lymphocyte/Result: negative/Mutagenicity (micronucleus test) Rat - male/Result: negative
84852-15-3 4-Nonylphenol, branched	
Mutagenicity	negative (mouse) (In Vivo (Directive 79/831/EEC, B12)) no mutagenic effects in mouse erythrocytes were observed during the test sampling time.Reference: IUCLID Dataset (2000).
Organophosphorous salt	
Mutagenicity	(No data available) negative (Chinese Hamster)

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9046-10-0 Poly(oxypropylene)diamine	
Mutagenicity	(No data available)
80-05-7 Bisphenol A	
Mutagenicity	negative (salmonella typhimurium) (In Vitro (Ames tests)) negative (mouse) (In Vivo (Micronucleus assay)) When considering all of the evidence, the substance was not classified as a mutagen.Reference: CCRIS (2011).
140-31-8 N-(2-Aminoethyl)piperazine	
Mutagenicity	negative (Human) (In Vitro (Cytogenic Assay with OECD TG 473)) In Vitro (Salmonella typhimurium; OECD TG 471) - Negative with and without metabolic activation negative (mouse) (In Vivo (Micronucleus Assay)) When considering all of the evidence, the substance is not classified as a mutagen. Reference: OECD SIDS (2005) and IUCLID Dataset (2000).
92704-41-1 Calcined Kaolin	
Mutagenicity	(Test species listed below) The substance can be considered as non-mutagenic.Reference: ECHA (2011).
103-83-3 Benzyldimethylamine	
Mutagenicity	Negative (salmonella typhimurium) (In Vitro (bacterial reverse mutation assay)) Negative (mouse) (In Vivo (micronucleus assay)) Reference: ECHA (2011).

· **Potential Health Effect(s):** No further relevant information; classification is not possible.

· **Carcinogenicity**	
21645-51-2 Aluminum hydroxide	
Carcinogenicity	negative (Human) The substance was not regulated as a carcinogen by IARC, NTP, or OSHA. Reference: ECHA (2011).
84852-15-3 4-Nonylphenol, branched	
Carcinogenicity	negative (Test species: n/a) (not listed as a Carcinogen by NTP, IARC or OSHA) Reference: Hexion (M)SDS (2004).
Polyamide CAS not available per 29CFR1910.1200(i)	
Carcinogenicity	(Test species: n/a) This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater
Organophosphorous salt	
Carcinogenicity	(Test species: n/a) (Not listed as a carcinogen by IARC, NTP, or OSHA.)
9046-10-0 Poly(oxypropylene)diamine	
Carcinogenicity	negative (Test species: n/a) (not listed as a Carcinogen by NTP, IARC or OSHA)
80-05-7 Bisphenol A	
Carcinogenicity	negative (mouse) (no carcinogenic effect with 1mg/kg/d for life-time) When considering all of the evidence, the substance was not classified as a carcinogen. Reference: CCRIS (2011) and IUCLID Dataset (2000).
140-31-8 N-(2-Aminoethyl)piperazine	
Carcinogenicity	negative (Test species: n/a) (not listed as a Carcinogen by NTP, IARC or OSHA)
92704-41-1 Calcined Kaolin	
Carcinogenicity	(rat) The substance was not classified as a carcinogen.Reference: ECHA (2011).
Amino ether -CAS withheld per 29CFR1910.1200(i).	
Carcinogenicity	(Test species: n/a) This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater
103-83-3 Benzyldimethylamine	
Carcinogenicity	Negative (Test species: n/a) (not listed as a Carcinogen by NTP, IARC or OSHA)

· **Potential Health Effect(s):** Not a known Carcinogen.

· **Reproductive Toxicity**	
21645-51-2 Aluminum hydroxide	
Reproductive Toxi.	negative (rat) (OECD TG 414; oral; 10 day-treatment; twice/day) Reference: ECHA (2011).
84852-15-3 4-Nonylphenol, branched	
Reproductive Toxi.	positive (rat) (NOAEL (oral) = 15 mg/kg/day) There were adverse effects on pups observed at the non-maternally toxic doses; the substance was therefore classified as a suspected reproductive hazard by EU.Reference: EPA HPVIS (2010) and REACh CLP (2012).
Organophosphorous salt	
Reproductive Toxi.	(No data available)
9046-10-0 Poly(oxypropylene)diamine	
Reproductive Toxi.	not impairing (Test species listed below) (OECD 421/422) The results of animal studies gave no indication of a fertility impairing effect. The results were determined in a Screening Test. Reference: Vendor SDS 2015
80-05-7 Bisphenol A	
Reproductive Toxi.	suspected (Rats and Mice) Suspected of damaging fertility or the unborn child.RTECS contains reproductive data for this substance.

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140-31-8 N-(2-Aminoethyl)piperazine	
Reproductive Toxi.	negative (rat) (OECD TG 422; No reproductive performance observed) Reference: ECHA (2011).
92704-41-1 Calcined Kaolin	
Reproductive Toxi.	negative (rabbit) Reference: ECHA (2011).
103-83-3 Benzyldimethylamine	
Reproductive Toxi.	Negative (rat) (No reproductive effects observed after oral doses) Reference: ECHA (2011).

· **Potential Health Effect(s):** Suspected of damaging fertility or the unborn child.

· **Specific Target Organ Toxicity - Single Exposure**	
21645-51-2 Aluminum hydroxide	
STOT-Single	Target: None (rat) (No mortality or any adverse effect observed) No mortality or any adverse effect was observed after a single oral administration of 2000 mg/kg to rats.Reference: ECHA (2011).
84852-15-3 4-Nonylphenol, branched	
STOT-Single	(No data available)
Organophosphorous salt	
STOT-Single	(No data available)
9046-10-0 Poly(oxypropylene)diamine	
STOT-Single	(No data available)
80-05-7 Bisphenol A	
STOT-Single	(rat) (Respiratory tract irritation via inhalation) Reference: IUCLID Dataset (2000).
140-31-8 N-(2-Aminoethyl)piperazine	
STOT-Single	Target: N/A (rat) (conclusive but not sufficient for classification) ECHA concluded substance data as conclusive but not sufficient for classification. Reference: ECHA (2011).
92704-41-1 Calcined Kaolin	
STOT-Single	(rat)
103-83-3 Benzyldimethylamine	
STOT-Single	N/A (rat) Reference: ECHA (2011).

· **Potential Health Effect(s):**
No further relevant information; classification is not possible.
Some target organs may be exclusive due to low concentration of the hazardous component(s).

· **Specific Target Organ Toxicity - Repeated Exposure**	
21645-51-2 Aluminum hydroxide	
STOT-Repeated	Target: None (rat) (OECD TG 407; neat substance; 28 days; oral) NOAEL (male rats) = 302 mg/kg bw/day; No mortality or any adverse effect was observed at daily doses up to 302 mg/kg body weight to rats. Reference: ECHA (2011).
84852-15-3 4-Nonylphenol, branched	
STOT-Repeated	(rat) (Target: Kidney via Oral routes) NOAEL (oral, 90 days) = 50 mg/kg/day; there were renal tubular epithelial degeneration and renal tubular dilatation observed from the test animals. Reference: Huntsman (M)SDS (2009), EPA HPVIS (2010), IUCLID Dataset (2000) and GHS-J (2006).
Organophosphorous salt	
STOT-Repeated	(rat) Species: Rats (Male/Female), male and female NOAEL: > 1,000 mg/kg Application Route: oral (gavage) Exposure time: 29 Number of exposures: 28 Method: OECD Test Guideline 407 GLP: yes
9046-10-0 Poly(oxypropylene)diamine	
STOT-Repeated	(No data available)
80-05-7 Bisphenol A	
STOT-Repeated	Target: N/A (rat) (conclusive but not sufficient for classification) ECHA concluded subtance data as conclusive but not sufficient for classification.Reference: ECHA (2011).
140-31-8 N-(2-Aminoethyl)piperazine	
STOT-Repeated	Target: None (rat) (After repeated dermal or oral administration) Reference: OECD SIDS (2005) and ECHA (2011).
92704-41-1 Calcined Kaolin	
STOT-Repeated	negative (rat) Reference: ECHA (2011).
103-83-3 Benzyldimethylamine	
STOT-Repeated	Target: None (rat) (No systemic effect after repeated oral doses) Reference: ECHA (2011).

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· **Aspiration Hazard**
21645-51-2 Aluminum hydroxide
Aspiration Hazard | (No data available)
84852-15-3 4-Nonylphenol, branched
Aspiration Hazard | (No data available)
Organophosphorous salt
Aspiration Hazard | (No data available)
9046-10-0 Poly(oxypropylene)diamine
Aspiration Hazard | (No data available)
80-05-7 Bisphenol A
Aspiration Hazard | (No data available)
140-31-8 N-(2-Aminoethyl)piperazine
Aspiration Hazard | (No data available)
92704-41-1 Calcined Kaolin
Aspiration Hazard | (No data available)
103-83-3 Benzyldimethylamine
Aspiration Hazard | (No data available)

· **Potential Health Effect(s):** No relevant information; classification is not possible.

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12 Ecological information

· **Aquatic Environmental Toxicity**	
21645-51-2 Aluminum hydroxide	
Algae Toxicity	> 100 mg/l (Selenastrum capricornum) (NOEC (72 hrs); OECD TG 201)
Crustacean Toxicity (static)	> 100 mg/l (Daphnia magna (water flea)) (NOEC (48 hrs); OECD TG 202)
Fish Toxicity	> 100 mg/l (Brown trout (Salmo trutta or Sea trout)) (NOEC (96 hrs); OECD TG 203) Reference: IUCLID Dataset (2000).
84852-15-3 4-Nonylphenol, branched	
Algae Toxicity	0.27 mg/l (Skeletonema costatum) (EC50 (96 hrs)) (Pseudokirchneriella subcapitata)EC50 (96 hrs) = 0.41 mg/L(Scenedesmus subspicatus)EC50 (72 hrs; Algenwachstums-Hemmtest nach UBA) = 1.3 mg/L
Crustacean Toxicity	0.15 mg/l (Hyalella azteca) (EC50 (96 hrs)) (Daphnia magna (water flea))EC50 (48 hrs) = 0.035 mg/L)NOEC (21 days) = 0.024 mg/L(Mysidopsis bahia) EC50 (96 hrs) = 0.043 mg/LNOEC (28 days) = 3.9 µg/L
Fish Toxicity	0.14 mg/l (Pimephales promelas (fathead minnow)) Vendor SDS (2015)
Organophosphorous salt	
Algae Toxicity	> 180 mg/l (Scenedesmus subspicatus) (NOEC; EU 92/69/EEC C3)
Crustacean Toxicity	> 100 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs); OECD TG 202)
Fish Toxicity	> 100 mg/l (Brachydanio rerio (Zebra fish)) (LC50 (96 hrs); OECD TG 203) Based the acute LC50 > 100 mg/L, the substance is not classified as an environmental hazard.Reference: Clariant (M)SDS (2005).
9046-10-0 Poly(oxypropylene)diamine	
Algae Toxicity	(No data available)
Crustacean Toxicity (static)	80 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs), OECD TG 202,part 1) The details of the toxic effect relate to nominal concentration. Reference: Vendor SDS 2015
Fish Toxicity	>15 mg/l (Oncorhynchus mykiss (Rainbow trout)) (LC50 (96 hrs), OECD TG 203;semistatic) Reference: Vendor SDS (2015). Limit concentration test only. The details of the toxic effect relate to nominal concentration.
80-05-7 Bisphenol A	
Algae Toxicity	2.7-3.1 mg/l (Pseudokirchneriella subcapitata) (EC50 (96 hrs), EPA 600/9-78-018)
Crustacean Toxicity	10.2 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs), ASTM E729-80) 1.1 mg/L (Mysidopsis bahia) (LC50 (96 hrs); method not specified)> 3.2 mg/L (daphnia magna) (NOEC (21 days); OECD TG 202)
Fish Toxicity	4.6 mg/l (Pimephales promelas (fathead minnow)) (LC50 (96 hrs), ASTM E729-80) Based on the rapid degradability, the substance is not classified as a chronic environment hazard. Based on acute LC50 < 10 mg/l, the substance is classified as an Acute-2 environmental hazard.Reference: IUCLID Dataset (2000) and OECD SIAM (2002).
140-31-8 N-(2-Aminoethyl)piperazine	
Algae Toxicity	495 mg/l (Green Algae) (EC50 (72 hrs); OECD TG 201) Royce SDS (2015)
Crustacean Toxicity	32 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs); OECD TG 202) Based on the non-rapid degradability and the acute EC50 < 100 mg/L, the substance is classified as a Chronic-3 environmental hazard. Vendor SDS (2015)
Fish Toxicity	368 mg/l (Leuciscus idus (Ide or Orfe)) (LC50 (96 hrs)) 560 mg/l (Pimephales promelas (fathead minnow)) (LC50 (96 hrs); OECD TG 203)Reference: OECD SIDS (2005) and ECHA (2011).

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92704-41-1 Calcined Kaolin	
Algae Toxicity	> 100 mg/l (Scenedesmus subspicatus) (ErC50 (72 hrs); OECD TG 201)
Crustacean Toxicity	> 1 mg/l (Daphnia magna (water flea)) (EC50 (96 hrs); OECD TG 202)
Fish Toxicity	(Oncorhynchus mykiss (Rainbow trout)) The substance is not classified as an environmental hazard.Reference: ECHA (2011) and IUCLID Dataset (2000).
103-83-3 Benzyldimethylamine	
Algae Toxicity	1.34 mg/l (Scenedesmus subspicatus) (EC50 (72 hrs); Growth rate; EU Method C3)
Crustacean Toxicity	> 100 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs); EU Method C2) 0.789 mg/L (daphnia magna (water flea)) (NOEC (21 days); OECD TG 211)Based on the chronic NOEC < 1 mg/L and the non-rapid degradability, the substance is classified as a Chronic-2 environmental hazard.
Fish Toxicity	37.8 mg/l (Pimephales promelas (fathead minnow)) (LC50 (96 hrs); OECD TG 203) Reference: ECHA (2011).

· **Aquatic Environmental Toxicity Assessment:** No further relevant information; classification is not possible.

· **Degradability and Stability**	
21645-51-2 Aluminum hydroxide	
Biodegradation	non-biodegrad. (Test species: n/a) (Due to being persistent)
Persistence	(Test species: n/a) (The substance is persistent) Reference: Canada DSL (2007).
Photodegradation	(No data available)
Stability in water	(No data available)
84852-15-3 4-Nonylphenol, branched	
Biodegradation	non-biodegrad. (Test species: n/a) (Read-across from 25154-52-3; OECD TG 301C) Biodegradation (Conc. 100 ppm; 2 weeks; Direct analysis from GC, UV-vis, HPLC) = 8.9, 5.3, 2.5% Biodegradation (Conc. 100 ppm; 2 weeks; Indirect analysis from BOD) = 0% The substance is non-biodegradable. Reference: NITE CHRIP (2010).
Persistence	(Test species: n/a) (The substance is not persistent) Reference: Canada DSL (2007).
Photodegradation	9.99E-11 cm³/molecule-sec (OH radical) (Half-life (5.0E5 OH/cm³) = 0.3 day) Reference: IUCLID Dataset (2000).
Stability in water	(No data available)
Organophosphorous salt	
Biodegradation	non-biodegrad. (Test species: n/a) (OECD TG 302B) The substance is non-biodegradable.Reference: Vendor (M)SDS.
Persistence	(Test species: n/a) Results of PBT and vPvB assessment . This substance is not considered to be very persistent and very bioaccumulating (vPvB).
Photodegradation	(No data available)
Stability in water	(No data available)
9046-10-0 Poly(oxypropylene)diamine	
Biodegradation	non-biodegrad. (Activated Sludge) (Biodegradation (OECD TG 301A; 28 days) = 10%) Reference: BASF (M)SDS (2006).
Persistence	(Test species: n/a) (This substance is not persistent) Reference: Canada DSL (2007).
Photodegradation	(Test species: n/a) (Indirect photolysis) t1/2 (Indirect photolysis) 1.6h; OH radical After evaporation or exposure to the air; the product will be rapidly degraded by photochemical processes. Reference: Vendor SDS 2015
Stability in water	(No data available) In contact with water the substance will hydrolyse slowly. Reference: Vendor SDS 2015
80-05-7 Bisphenol A	
Biodegradation	readily biodeg. (Test species: n/a) (Biodegradation (OECD TG 301F)≥89%) It was determined to be readily biodegradable.Reference: CHRIP (2011).
Persistence	(Test species: n/a) (The substance is not persistent) Reference: ACToR (2011).
Photodegradation	8.06E-11 cm³/molecule-sec (Test species: n/a) Reference: ChemID (2011).
Stability in water	(No data available)
140-31-8 N-(2-Aminoethyl)piperazine	
Biodegradation	non-biodegrad. (Test species: n/a) (Biodegradation (OECD TG 301C) < 5%) This substance is non-biodegradable. Reference: NITE CHRIP (2011).
Persistence	(Test species: n/a) (The substance is persistent) Reference: NITE CHRIP (2011).
Photodegradation	2.14E-14 cm³/molecule-sec (OH radical) (Half-life (1.5E6 OH/cm³) = 0.6 hours) However, photolysis effect can be seen as negligible based on the partition of the substance to air is less than 1%. Reference: OECD SIDS (2005).
Stability in water	stable (Test species: n/a) Hydrolysis is not expected under environmental conditions (pH from 5 to 9).Reference: IUCLID Dataset (2000).

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92704-41-1 Calcined Kaolin	
Biodegradation	(No data available) As an inorganic metal compound, biodegradation of the substance is not expected.
Persistence	(Test species: n/a) The substance is persistent.Reference: Canada DSL (2007)
Photodegradation	(No data available) As an inorganic metal compound, photodegradation of the substance is not expected.
Stability in water	(Test species: n/a) (Directive 84/449/EEC; abiotic; at 25 °C) Half-life (PH= 4, 7 and 9) > 1 year; the substance is expected to be hydrolytically stable.Reference: IUCLID Dataset (2000).
103-83-3 Benzyldimethylamine	
Biodegradation	non-biodegrad. (Test species: n/a) (Biodegradation (OECD TG 301C) ≤ 1%) The substance is not biodegradable. Reference: CHRIP (2011).
Persistence	(Test species: n/a) (The substance is persistent) Reference: Canada DSL (2007).
Photodegradation	8.21E-11 cm³/molecule-sec (OH radical) Reference: ChemID Full Record (2011).
Stability in water	(No data available)

· **Bioaccumulation and Distribution**

21645-51-2 Aluminum hydroxide	
LogPow	(No data available)
BCF	(Test species: n/a) (The substance is not bioaccumulative) Reference: Canada DSL (2007).
Koc	(No data available)
84852-15-3 4-Nonylphenol, branched	
LogPow	3.8 - 4.8 (Test species: n/a) Reference: IUCLID Dataset (2000).
BCF	90-330 (Cyprinus carpio) (The substance is not bioaccumulative) Reference: NITE CHRIP (2010) and IUCLID Dataset (2000).
Koc	2580 - 25200 L/kg (Test species: n/a) Calculated from Log Koc = 0.989 LogPow - 0.346 and LogPow of 3.8 - 4.8.Reference: IUCLID Dataset (2000).
Organophosphorous salt	
LogPow	(No data available)
BCF	(No data available)
Koc	(No data available)
9046-10-0 Poly(oxypropylene)diamine	
LogPow	-0.09 (Test species: n/a) (The substance is not bioaccumulative) Reference: BASF (M)SDS.
BCF	(No data available)
Koc	(No data available)
80-05-7 Bisphenol A	
LogPow	3.4 (Test species: n/a) (OECD TG 107) Reference: ECHA (2011).
BCF	5.1-67.7 (Cyprinus carpio) (The substance is not highly bioaccumulative) Reference: CHRIP (2011).
Koc	(No data available)
140-31-8 N-(2-Aminoethyl)piperazine	
LogPow	-1.48 (Test species: n/a) (Shake-flask method) Reference: ECHA (2011) and OECD SIDS (2005).
BCF	(Test species: n/a) (The substance is not bioaccumulative) Reference: Canada DSL (2007).
Koc	37000 L/kg (Test species: n/a) (Batch equilibrium method) Reference: ECHA (2011).
92704-41-1 Calcined Kaolin	
LogPow	(Not applicable)
BCF	(No data available) The substance is not bioaccumulative.Reference: Canada DSL (2007).
Koc	(No data available)
103-83-3 Benzyldimethylamine	
LogPow	1.98 (Test species: n/a) (at PH=13) Reference: ECHA (2011).
BCF	(Cyprinus carpio) BCF (Chemical concentration: 500 µg/L; 6 weeks) = 2.1 - 6.4 BCF (Chemical concentration: 50 µg/L; 6 weeks) < 22 The substance is low bioaccumulative in aquatic environment. Reference: CHRIP (2011).
Koc	(No data available)

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· **Degradability and Bioaccumulation Assessment:** Non-rapidly degradable, and low bioaccumulative.

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13 Disposal considerations

· **Hazardous Waste List**
· **Description:**
The product has not been evaluated for its hazards when disposed as a waste by RCRA.
However, it is necessary to contain and dispose of the product as a hazardous waste based on the Hazard Identification in Section 2.

· **RCRA Waste:**

103-83-3	Benzyldimethylamine	D001, D002	0.1-<1%
71-36-3	1-Butyl alcohol	U031 (n-Butyl alcohol (I))	0-<0.1%

· **Waste Treatment Recommendation:**
Generation of waste should be avoided or minimized wherever possible.
Chemical waste, even small quantities, is neither allowed to be poured down drains, sewage system or waterways; nor disposed with household garbage.
Dispose of contents/containers in accordance with local, regional, national, and international regulations.

· **Unused and Uncontaminated Packagings**
· **Recommendation** Dispose of according to your local waste regulations.

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14 Transport information

· **UN-Number**
· **DOT, ADR, IMDG, IATA** UN3267

· **UN Proper Shipping Name**
· **DOT, ADR, IMDG, IATA** Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched, Poly(oxypropylene) diamene)

· **Transport hazard class(es)**

· **DOT**

· **Class** 8 Corrosive substances
· **Label** 8

· **ADR**

· **Class** 8 (C7) Corrosive substances
· **Label** 8

· **IMDG**

· **Class** 8 Corrosive substances
· **Label** 8

· **IATA**

· **Class** 8 Corrosive substances
· **Label** 8

· **Packing group**
· **DOT, ADR, IMDG, IATA** III

· **Environmental Hazards:**
· **Marine Pollutant:** Yes
Symbol (fish and tree)
· **Special Marking (ADR):** Symbol (fish and tree)

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· **Special Precautions:**	Warning: Corrosive substances
· **Danger Code (Kemler):**	80
· **EMS Number:**	F-A,S-B
· **Segregation Groups**	Alkalis
· **Stowage Category**	A
· **Stowage Code**	SW2 Clear of living quarters.
· **Segregation Code**	SG35 Stow "separated from" acids.
· **Transport in Bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional Information:**	
· **DOT**	
· **Quantity limitations**	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· **Remarks:**	Special marking with the symbol (fish and tree).
· **ADR**	
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (4-NONYLPHENOL, BRANCHED, Poly(oxypropylene)diamene), 8, III

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15 Regulatory information

· **USA Regulation Lists**

· **SARA (Superfund Amendments and Reauthorization Act of 1986)**

· **Section 302 (Extremely Hazardous Substances)**

None of the ingredients is listed.

· **Section 313 (Toxics Release Inventory (TRI) reporting)**

84852-15-3	4-Nonylphenol, branched	10-20%
80-05-7	Bisphenol A	5-<10%
71-36-3	1-Butyl alcohol	0-<0.1%

· **Section 311/312 (Hazardous Chemical Inventory Reporting)**

84852-15-3	4-Nonylphenol, branched	A	10-20%
	Organophosphorous salt	A	10-20%
9046-10-0	Poly(oxypropylene)diamine	A	10-20%
80-05-7	Bisphenol A	A, C	5-<10%
140-31-8	N-(2-Aminoethyl)piperazine	A, C	5-<10%

· **Hazard Abbreviations for SARA 311/312**
A - Acute Health Hazard
C - Chronic Health Hazard
F - Fire Hazard
R - Reactive Hazard
S - Sudden Release of Pressure Hazard

· **TSCA (Toxic Substances Control Act)**

21645-51-2	Aluminum hydroxide
84852-15-3	4-Nonylphenol, branched
	Organophosphorous salt
9046-10-0	Poly(oxypropylene)diamine
80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine
92704-41-1	Calcined Kaolin
100-51-6	Benzyl alcohol
103-83-3	Benzyldimethylamine
98171-53-0	Butanoic acid, 4-amino-4-oxosulfo-, N-coco alkyl derivs., monosodium salts, compds. with triethanolamine
71-36-3	1-Butyl alcohol
1317-70-0	Anatase

· **Proposition 65**

· **Chemicals Known to Cause Cancer**

None of the ingredients is listed.

· **Chemicals Known to Cause Reproductive Toxicity for Females**

80-05-7	Bisphenol A

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· **Chemicals Known to Cause Reproductive Toxicity for Males**

None of the ingredients is listed.

· **Chemicals Known to Cause Developmental Toxicity**

None of the ingredients is listed.

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**

71-36-3	1-Butyl alcohol	D

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value Established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **International Regulation Lists**

· **Canadian Domestic Substance Listings:**

21645-51-2	Aluminum hydroxide
84852-15-3	4-Nonylphenol, branched
9046-10-0	Poly(oxypropylene)diamine
80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine
92704-41-1	Calcined Kaolin
100-51-6	Benzyl alcohol
103-83-3	Benzyldimethylamine
98171-53-0	Butanoic acid, 4-amino-4-oxosulfo-, N-coco alkyl derivs., monosodium salts, compds. with triethanolamine
71-36-3	1-Butyl alcohol

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine

· **Chinese Chemical Inventory of Existing Chemical Substances:**

21645-51-2	Aluminum hydroxide
84852-15-3	4-Nonylphenol, branched
9046-10-0	Poly(oxypropylene)diamine
80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine
92704-41-1	Calcined Kaolin
100-51-6	Benzyl alcohol
103-83-3	Benzyldimethylamine
98171-53-0	Butanoic acid, 4-amino-4-oxosulfo-, N-coco alkyl derivs., monosodium salts, compds. with triethanolamine
71-36-3	1-Butyl alcohol
1317-70-0	Anatase

· **Japanese Existing and New Chemical Substance List:**

21645-51-2	Aluminum hydroxide
84852-15-3	4-Nonylphenol, branched
9046-10-0	Poly(oxypropylene)diamine
80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine
92704-41-1	Calcined Kaolin
100-51-6	Benzyl alcohol
103-83-3	Benzyldimethylamine
71-36-3	1-Butyl alcohol
1317-70-0	Anatase

· **Korean Existing Chemical Inventory:**

21645-51-2	Aluminum hydroxide
84852-15-3	4-Nonylphenol, branched
9046-10-0	Poly(oxypropylene)diamine
80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine
92704-41-1	Calcined Kaolin
100-51-6	Benzyl alcohol
103-83-3	Benzyldimethylamine

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71-36-3	1-Butyl alcohol
1317-70-0	Anatase
·	**European Pre-registered substances:**
21645-51-2	Aluminum hydroxide
84852-15-3	4-Nonylphenol, branched
9046-10-0	Poly(oxypropylene)diamine
80-05-7	Bisphenol A
140-31-8	N-(2-Aminoethyl)piperazine
92704-41-1	Calcined Kaolin
100-51-6	Benzyl alcohol
103-83-3	Benzyldimethylamine
98171-53-0	Butanoic acid, 4-amino-4-oxosulfo-, N-coco alkyl derivs., monosodium salts, compds. with triethanolamine
71-36-3	1-Butyl alcohol
1317-70-0	Anatase
·	**REACh - Substances of Very High Concern (SVHC) List:**
84852-15-3	4-Nonylphenol, branched 10-20%
·	**Restriction of Hazardous Substances Directive (RoHS) list:**
None of the ingredients is listed.	

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department Issuing (M)SDS:** Product Safety Department
· **Contact:** msds@resinlab.com

· **Abbreviations and acronyms:**
ACGIH: American Conference of Governmental Industrial Hygienists
ACToR: US EPA Aggregated Computational Toxicology Resource
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
BCF: Bioconcentration Factor
CAS: Chemical Abstracts Service (division of the American Chemical Society)
CCRIS: US NLM TOXNET Chemical Carcinogenesis Research Information System
CHRIP: Japan NITE Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk Information Platform
DOT: US Department of Transportation
DSL: Canada Domestic Substance List
ESIS: European Chemical Substances Information System
HMIS: US National Paint & Coatings Association (NPCA) Hazardous Materials Identification System
HPVIS: US EPA High Production Volume Information System
HSDB: US NLM TOXNET Hazardous Substances Databank
HSNO CCID: New Zealand Hazardous Substances and New Organisms Chemical Classification Information Database
IARC: International Agency for Research on Cancer developed by United Nations World Health Organisation (WHO)
IATA-DGR: Dangerous Goods Regulations (DGR) by the International Air Transport Association (IATA)
ICAO-TI: Technical Instructions (TI) by the International Civil Aviation Organization (ICAO)
ICSC: International Chemical Safety Cards
IMDG: International Maritime Dangerous Goods; the principal international rules for International Carriage of Dangerous Goods by SEA under the Recommendations on the Transport of Dangerous Goods by United Nations (RTDG)
IUCLID: EU REACh International Uniform Chemical Information Database
Koc: Partition coefficient, soil Organic Carbon to water
LC50/LD50: Lethal Concentration/Dose, 50 percent
N/a: Not available or Not applicable
NFPA: US National Fire Protection Association
NIOSH: US National Institute of Occupational Safety and Health
NITE: National Institute of Technology and Evaluation, Japan
OECD: Organisation for Economic Co-operation and Development
OSHA: US Occupational Safety and Health Administration
P: Marine Pollutant
RCRA: Resource Conservation and Recovery Act (USA)
REACh: EU Registry, Evaluation and Authorisation of Chemicals
RID: the Regulations Concerning the International Carriage of Dangerous Goods by Rail; published by the Central Office for International Carriage by Rail (OTIF)
RTDG: the Recommendations on the Transport of Dangerous Goods by United Nations (UN)
RTECS: US Registry of Toxic Effects of Chemical Substances
SARA: US Superfund Amendments and Reauthorization Act
SIDS: OECD existing chemicals Screening Information Data Sets
SIDS SIAM(R): SIDS Initial Assessment Meetings(Reports)
SVHC: EU ECHA Substance of Very High Concern
TEEL: Temporary Emergency Exposure Limit developed by US Subcommittee on Consequence Assessment and Protective Actions (SCAPA) of US Department of Energy (DOE)
TOXLINE: US NLM bibliographic database search system
TSCA: US Toxic Substance Control Act
· **Date of preparation / last revision** 01/28/2016 / 5