

Safety Data Sheet
acc. to OSHA HCS

Print Date 05/19/2015

Revision Date 05/19/2015

Product Identifier

Trade Name: *EP1305 Black 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)

2 Hazard(s) identification

Hazard Classification



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 Environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Label Elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Pictogram(s)



GHS05



GHS07



GHS08



GHS09

Signal Word *Danger*

Hazard-determining Component(s)

4-Nonylphenol, branched
N-(2-Aminoethyl)piperazine
Poly(acrylonitrile-co-butadiene)

Hazard statements

Harmful in contact with skin.

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Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

Do not breathe dusts or mists.
Wear protective gloves.
Wear protective gloves / protective clothing.
Wear eye protection / face protection.
Avoid release to the environment.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF ON SKIN (or hair): Remove/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.
Specific treatment (see on this label).
IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Prevention

Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Use personal protective equipment as required.
Avoid release to the environment.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard Rating System

NFPA System

NFPA Ratings (scale 0 - 4)



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

HMIS System

HMIS Ratings (scale 0 - 4)



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Other hazards
Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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	40-50%
CAS: 68683-29-4 EC number: 614-706-7	Poly(acrylonitrile-co-butadiene) ⚠ Skin Sens. 1, H317 Eye Dam. 2B, H320	30-40%
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; Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317 Aquatic Acute 3, H402; Aquatic Chronic 3, H412	10-20%
CAS: 67762-90-7 EC number: 614-122-2	Siloxanes and Silicones, di-Me, reaction products with silica	5-<10%

Classification System:

The Classifications were based on the Toxicological and Ecological Data of the substances/mixtures in the Section 11 and 12.

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. Supply fresh air and to be sure call for a doctor.
 In case of unconsciousness place patient stably in side position for transportation.
 If breathing is difficult, administer oxygen.
 Seek immediate medical advice.

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.
 Seek immediate medical advice even if no symptoms develop.

After Eye Contact

Immediately rinse opened eyes for at least 15 minutes under running water.
 Immediately remove contact lenses if present. Continue rinsing.
 Do not put any ointments, oils or medication in eyes without specific instructions.
 IMMEDIATELY transport victim to a hospital even if no symptoms develop.

After Swallowing

If victim is unconscious; never give anything by mouth.
 If victim is conscious; rinse out mouth and give victim small amounts of water.
 Do NOT induce vomiting.
 Drink fluids and provide fresh air, get medical attention immediately.
 If vomiting occurs spontaneously, keep victim's head below hips to prevent aspiration of liquid into lungs.

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Seek immediate medical advice.

· **After Exposure** Get medical advice/attention at once.

· **Information for Doctor** Have chemical containers, labels and/or (M)SDS ready when calling or visiting a medical center.

· **Indication of any Immediate Medical Attention and Special Treatment Needed**

After frequent or high intense exposure, the following medical tests are recommended:

eye tests

skin tests

kidney tests

Reproductive system function tests

respiratory system tests

Check section 11 Toxicological Information for further relevant information.

· **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.

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 (CO₂).

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.

Solid stream of water may spread fire; use water spray or water fog.

Cool all affected containers with flooding quantities of water.

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.

Fight fire from protected location or safe distance.

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:

Aldehydes and or ketones.

May generate ammonia gas.

Toxic vapor

Formaldehyde, a skin and lung sensitizer and a regulated carcinogen, may be formed during fires.

Carbon dioxide (CO₂) and Carbon monoxide (CO)

Nitrogen oxides

Silicon oxide (SiO₂)

· **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.

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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.
For large spills:
Shut off source of leak if safe to do so.
Dike and contain.
Remove with vacuum trucks or pump to storage/salvage vessels.
Allow molten product to cool.
Absorb residues with liquid-binding materials.
For small spills:
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.

Additional Information No further relevant information.

7 Handling and storage

Handling

Precautions for Safe Handling

Obtain special instruction before use; do not handle until all safety precautions have been read and understood.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during handling.
Wear respiratory protection when handling.
Ensure good ventilation and/or exhaustion at workplace.
Keep away from incompatible material(s).
Avoid any release into the environment.
Keep container tightly closed when not in use if product is volatile so as to generate hazardous atmosphere.
Observe all the personal protection requirements in Section 8.

Information about Protection Against Explosions and Fires

Will not burn unless preheated.
Keep away from heat, sparks, open flame and other ignition sources during handling.

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/m ³
TEEL-2	Short-term value: 125 mg/m ³
TEEL-3	Short-term value: 500 mg/m ³

140-31-8 N-(2-Aminoethyl)piperazine

TEEL-1	Short-term value: 7.5 mg/m ³
TEEL-2	Short-term value: 50.0 mg/m ³
TEEL-3	Short-term value: 500 mg/m ³

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

OSHA PEL	Short-term value: 15 mg/m ³
US ACGIH	Short-term value: 10 mg/m ³

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 avoid direct skin contact with this product.

Avoid any contact with skin or eye.

Do not eat, drink or smoke during work.

Keep food, drink or feed away from working area.

Contaminated work clothing is not allowed out of workplace.

Clean hands and exposed skin thoroughly after work and before breaks.

Personal Protective Equipment (PPE)

Breathing Equipment

Caution! Improper use of respirators is dangerous.

In case of brief exposure or low pollution, use a respiratory filter device.

In case of intensive or longer exposure, use a positive-pressure respiratory protective device that is independent of circulating air.

Hand Protection



Protective gloves

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



Brief or short term use: Tightly sealed goggles



Intensive or long term use: Tightly sealed goggles and Face Shields

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Body Protection


Intensive or long term use: Protective Clothing

Additional Information

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

9 Physical and chemical properties

Information on Basic Physical and Chemical Properties

Appearance:

· Form:	Paste
· Color:	Amber
· Odor:	Fish-like
· Odor Threshold:	Not determined.

· **PH-Value:** Not determined.

Change in Condition:

· Melting Point:	Not determined.
· Boiling Point:	>200 °C (>392 °F)
· Flash Point:	>99 °C (>210 °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):	.99 g/cm ³ (.826.155 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):	70000 mPas
· Kinematic:	Not determined.

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

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).

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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 (H₂).
- **Incompatible Material(s)**
 nickel and cobalt
 Oxidizing agents
 Strong acids
 Isocyanates
 Aldehydes
 Chloroformates
 Vinyl acetate, Nitrides, Acrylates, Substituted alkyls, Alkylene oxides, Epichlorohydrin, Caprolactam solution, and Carbon monoxide (CO).
- **Hazardous Decomposition Product(s)**
 Ammonia (NH₃) 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.
- **Additional Information** No further relevant information.

11 Toxicological information

Acute Toxicity

Oral	
84852-15-3 4-Nonylphenol, branched	
Oral LD50	1604 mg/kg (rat) Reference: Royce SDS (2015)
68683-29-4 Poly(acrylonitrile-co-butadiene)	
Oral LD50	>15400 mg/kg (rat) Reference: CVC Thermoset Specialties (M)SDS (2011).
140-31-8 N-(2-Aminoethyl)piperazine	
Oral LD50	2140 mg/kg (rat) Royce SDS (2015)
67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica	
Oral LD50	>5000 mg/kg (rat) (test method not specified) Reference: Cabot (M)SDS (2012).

Potential Health Effect(s):

If swallowed, may cause:

diarrhea

nausea

shock or collapse

See acute inhalative effect(s) for further information

Dermal

84852-15-3 4-Nonylphenol, branched	
Dermal LD50	2031 mg/kg (rabbit) Royce SDS (2015)
68683-29-4 Poly(acrylonitrile-co-butadiene)	
Dermal LD50	(rabbit) (LD50 > 3000 mg/kg) Reference: CVC Thermoset Specialties (M)SDS (2011).
140-31-8 N-(2-Aminoethyl)piperazine	
Dermal LD50	866 mg/kg (rabbit) Reference: OECD SIDS (2005).
67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica	
Dermal LD50	(Test species: n/a) (Toxicity not expected based on acute oral data) Based on the acute oral toxicity test, it was expected that toxicity to mammals via dermal application of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute dermal hazard as a wetted form.

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Potential Health Effect(s):

Harmful in contact with skin.
See acute inhalative effect(s) for further information.

Inhalative
84852-15-3 4-Nonylphenol, branched

Inhalative	LC50/4 h	(mouse) (Non-toxic; LC50 exceeded the saturated vapor value) At 267 mg/m ³ (230 ppm), there was no significant depression. At the saturated vapor concentration of 3636 mg/m ³ (400 ppm) at 70 °C, there was sensory irritation observed which was rapidly gone after removal from exposure. The substance was not classified as an acute inhalative hazard under its regular use. Reference: IUCLID Dataset (2000).
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68683-29-4 Poly(acrylonitrile-co-butadiene)

Inhalative	LC50/4 h	(No data available)
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140-31-8 N-(2-Aminoethyl)piperazine

Inhalative	LC50/4 h	(rat) (No mortality observed at saturated atmosphere) No mortality was observed in rats after a single exposure to the saturated atmosphere for 8 hours. Reference: OECD SIDS (2005).
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67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Inhalative	LC50/4 h	(Test species: n/a) (Toxicity not expected based on acute oral data) Due to wetted form of the substance, inhalative effects from dust form can be seen as negligible. Meanwhile, based on the acute oral toxicity test, it was expected that toxicity to mammals via inhalation of the substance was not a significant concern and resulted in a similar lack of acute toxicity. Thus, the substance was not classified as an acute inhalation hazard.
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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):
burning sensation
sore throat
cough, headache, nausea, shortness of breath, vomiting, and wheezing

Skin Corrosion or Irritation
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).
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68683-29-4 Poly(acrylonitrile-co-butadiene)

Corrosion/Irritation	moderately irrit (rabbit) (Test detail not available) Reference: CVC Thermostat Specialties (M)SDS (2011).
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140-31-8 N-(2-Aminoethyl)piperazine

Corrosion/Irritation	corrosive (rabbit) (US DOT Corrosivity Assay) 100 % pure substance (4 hours) - corrosive 10 % substance (9 -11 days) - moderate irritation 10 % substance (abraded skin, 2 days) - deep necrosis Thus, the substance was classified as corrosive to rabbit skin (Category 1). Reference: OECD SIDS (2005).
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67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Corrosion/Irritation	Non-irritating (Test species: n/a) (Primary irritation index=0) mildly irritating (rabbit) (Read across from CAS 63148-62-9) No test detail available; for safety reasons, the substance was classified as mildly irritating (Category 3) to rabbit skin. Reference: HSNO CCID (2010).
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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
84852-15-3 4-Nonylphenol, branched

Damage/Irritation	serious irrit. (rabbit) (Draize Test) There was corneal opacity in all animals and iritis in two. Meanwhile, all treated animals showed marked conjunctival involvement with transient discharges. Thus, the substance was classified as a serious eye irritant (Category 1). Reference: IUCLID Dataset (2000).
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68683-29-4 Poly(acrylonitrile-co-butadiene)

Damage/Irritation slightly irrit. (rabbit)
 Reference: CVC Thermoset Specialties (M)SDS (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).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Damage/Irritation slightly irrit. (Human) (Read across from CAS 63148-62-9)
 non-irritating (Primary irritation index=0)
 Transient ocular irritation was observed in humans, rabbits, dogs, and monkeys after injection of the substance to their eye bodies. However, those effects can be seen as negligible based on regular use of the substance. When applying lower viscosity substance-oil mixture to human and rabbit eyes, there was no cornea injury, but a delay of healing of the existed corneal erosion observed. For safety reasons, the substance was classified as a slight eye irritant (Category 2B).
 Reference: ACToR (2011) and Cabot (M)SDS (2012).

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
84852-15-3 4-Nonylphenol, branched

Sensitization	Skin	not sensitizing (guinea pig) (Buehler test with OECD TG 406) Guinea pig maximization test - negative There was no significant difference between treated and negative controlled groups; the substance was not classified as a dermal sensitizer. Reference: IUCLID Dataset (2000).
	Respiratory	(No data available)

68683-29-4 Poly(acrylonitrile-co-butadiene)

Sensitization	Skin	sensitizing (guinea pig) Reference: CVC Thermoset Specialties (M)SDS (2011).
	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)

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Sensitization	Skin	(No data available) Primary irritation index=0 Non-irritating. Cabot MSDS (2012)
	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.

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Germ Cell Mutagenicity

84852-15-3 4-Nonylphenol, branched

Mutagenicity negative (mouse) (In Vivo (Directive 79/831/EEC, B12))
 In Vitro (Ames test; salmonella typhimurium) - negative with and without metabolic activation
 In Vitro (HGPRT assay with OECD TG 476; Chinese Hamster) - negative with and without metabolic activation
 In Vivo (Directive 79/831/EEC, B12; mouse) - no mutagenic effects in mouse erythrocytes were observed during the test sampling time.
 Reference: IUCLID Dataset (2000).

68683-29-4 Poly(acrylonitrile-co-butadiene)

Mutagenicity (No data available)

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))
 In Vitro (Mouse; Lymphoma Assay) - Negative with and without metabolic activation.
 In Vitro (Mouse; Gene Mutation Assay) - Positive without metabolic activation (due to high pH)
 In Vitro (Rat; Unscheduled DNA Synthesis with OECD TG 482) - Negative
 In Vitro (Saccharomyces cerevisiae) - Negative with and without metabolic activation.
 When considering all of the evidence, the substance is not classified as a mutagen.
 Reference: OECD SIDS (2005) and IUCLID Dataset (2000).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Mutagenicity negative (Chinese Hamster) (In Vitro (AMES Test))
 negative (Chinese Hamster) (In Vitro (Chromosomal aberration in ovary cells))
 Reference: Cabot (M)SDS (2012).

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

Carcinogenicity

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).

68683-29-4 Poly(acrylonitrile-co-butadiene)

Carcinogenicity (Test species: n/a)
 Not listed as a carcinogen according to ACGIH, IARC, NTP, or OSHA.

140-31-8 N-(2-Aminoethyl)piperazine

Carcinogenicity negative (Test species: n/a) (not listed as a Carcinogen by NTP, IARC or OSHA)

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Carcinogenicity (Test species: n/a) (Not listed by IARC, NTP, OSHA or ACGIH)

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

Reproductive Toxicity

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).

68683-29-4 Poly(acrylonitrile-co-butadiene)

Reproductive Toxi. (No data available)

140-31-8 N-(2-Aminoethyl)piperazine

Reproductive Toxi. negative (rat) (OECD TG 422; No reproductive performance observed)
 Route: Oral with up to 416 mg/kg/day (male rats) and 598 mg/kg/day (female rats)
 No reproductive performance in maternal animals or general physical condition in F1 pups was observed at any dose levels. Thus, the substance was not classified as a reproductive hazard.
 Reference: ECHA (2011).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Reproductive Toxi. (No data available)

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

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Specific Target Organ Toxicity - Single Exposure

84852-15-3 4-Nonylphenol, branched

STOT-Single (No data available)

68683-29-4 Poly(acrylonitrile-co-butadiene)

STOT-Single (No data available)

140-31-8 N-(2-Aminoethyl)piperazine

STOT-Single Target: N/A (rat) (conclusive but not sufficient for classification)
 NOAEL (oral) < 2097 mg/kg
 At necropsy, slightly congested lungs, mottled livers, intestine and adrenal hemorrhaged stomach, and congested internally but pale externally kidneys were observed in victims that were killed at the dose level of 2097 mg/kg. NOAEL was not established. Meanwhile, ECHA concluded it as conclusive but not sufficient for classification.
 Reference: ECHA (2011).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

STOT-Single (dynamic) (No data available)

Potential Health Effect(s): May cause respiratory irritation.

Specific Target Organ Toxicity - Repeated Exposure

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).

68683-29-4 Poly(acrylonitrile-co-butadiene)

STOT-Repeated (No data available)

140-31-8 N-(2-Aminoethyl)piperazine

STOT-Repeated Target: None (rat) (After repeated dermal or oral administration)
 Target organs: None
 NOAEL (dermal; 4 weeks; OECD TG 410) = 1000 mg/kg/day (the maximum test dose)
 There was no evidence of systemic toxicity observed.
 (rat) (Oral; OECD TG 422)
 Target organs: None
 A test item-related lower mean final body weight was apparent in females of the 8000 ppm/day group (598 mg/kg/day) at the scheduled necropsy. However, the dose level was outside of the guidance value ranges.
 Reference: OECD SIDS (2005) and ECHA (2011).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

STOT-Repeated (No data available)

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

Aspiration Hazard

84852-15-3 4-Nonylphenol, branched

Aspiration Hazard (No data available)

68683-29-4 Poly(acrylonitrile-co-butadiene)

Aspiration Hazard (No data available)

140-31-8 N-(2-Aminoethyl)piperazine

Aspiration Hazard (No data available)

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Aspiration Hazard (No data available)

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

Additional Information No further relevant information.

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12 Ecological information

Aquatic Environmental Toxicity

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 Royce SDS (2015) NOEC (21 days) = 0.024 mg/L (Mysidopsis bahia) EC50 (96 hrs) = 0.043 mg/L NOEC (28 days) = 3.9 µg/L
Fish Toxicity	0.14 mg/l (Pimephales promelas (fathead minnow)) Royce SDS (2015)

68683-29-4 Poly(acrylonitrile-co-butadiene)

Algae Toxicity	> 1000 mg/l (Test species: n/a) (EC50 (72 hrs); OECD TG 201)
Crustacean Toxicity	> 1000 mg/l (Daphnia magna (water flea)) (EC50 (48 hrs); OECD TG 202)
Fish Toxicity	(No data available) Reference: CVC Thermoset Specialties (M)SDS (2011).

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. Royce 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).

67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica

Algae Toxicity	> 10000 mg/l (Scenedesmus subspicatus) (ErC50 (24 hrs), OECD 201)
Crustacean Toxicity	> 1000 mg/l (Daphnia magna (water flea)) (EC50 (24 hrs), OECD 202)
Fish Toxicity	> 10000 mg/l (Brachydanio rerio (Zebra fish)) (LC50 (96 hrs), OECD 203) Reference: Cabot (M)SDS (2012).

Aquatic Environmental Toxicity Assessment: Very toxic to aquatic life with long lasting effects.

Degradability and Stability

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 cm ³ /molecule-sec (OH radical) (Half-life (5.0E5 OH/cm ³) = 0.3 day) Reference: IUCLID Dataset (2000).
Stability in water	(No data available)

68683-29-4 Poly(acrylonitrile-co-butadiene)

Biodegradation	(Test species: n/a) The substance was not readily biodegradable. Reference: CVC Thermoset Specialties (M)SDS (2011).
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Persistence	(Test species: n/a) The substance is persistent. Reference: Canada DSL (2007).
Photodegradation	(No data available)
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%) Biodegradation (Conc.: 100 mg/L; 4 weeks; Indirect analysis from BOD) < 1% Biodegradation (Conc.: 100 mg/L; 4 weeks; Direct analysis from TOC and GC) ≤ 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 cm ³ /molecule-sec (OH radical) (Half-life (1.5E6 OH/cm ³) = 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).
67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica	
Biodegradation	(No data available)
Persistence	(Test species: n/a) (The substance is not persistent) Reference: Canada DSL (2007).
Photodegradation	(No data available)
Stability in water	(No data available)
Bioaccumulation and Distribution	
84852-15-3 4-Nonylphenol, branched	
BCF	90-330 (Cyprinus carpio) (The substance is not bioaccumulative) BCF = 250 - 330 (8 weeks; Concentration: 0.1 ppm) BCF = 90 - 220 (8 weeks; Concentration: 0.01 ppm) (Pimephales promelas (fathead minnow)) BCF (20 days, chemical concentration = 21 µg/L) = 271 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).
LogPow	3.8 - 4.8 (Test species: n/a) Reference: IUCLID Dataset (2000).
68683-29-4 Poly(acrylonitrile-co-butadiene)	
BCF	(No data available) The substance is not bioaccumulative. Reference: Canada DSL (2007).
Koc	(No data available)
LogPow	(No data available)
140-31-8 N-(2-Aminoethyl)piperazine	
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) The substance is expected to have high affinity for adsorption to soil and sediments via a cation exchange mechanism. The substance would partition primarily to water (71.4%) and to a lesser extent soil (28.6%) based on Level 3 Fugacity Modeling. Reference: ECHA (2011).
LogPow	-1.48 (Test species: n/a) (Shake-flask method) Reference: ECHA (2011) and OECD SIDS (2005).
67762-90-7 Siloxanes and Silicones, di-Me, reaction products with silica	
BCF	(No data available) (The substance is not bioaccumulative) Reference: Canada DSL CCR (2011).
Koc	(No data available)

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LogPow (No data available)

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

Additional Information No further relevant information.

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.

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.

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, N-Aminoethylpiperazine)

Transport hazard class(es)

DOT



Class 8 Corrosive substances
Label 8

ADR



Class 8 (C7) Corrosive substances
Label 8

IMDG



Class 8 Corrosive substances

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· Label	8
· IATA	
	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental Hazards:	Product contains environmentally hazardous substances: 4-Nonylphenol, branched
· Marine Pollutant:	Yes Symbol (fish and tree)
· Special Marking (ADR):	Symbol (fish and tree)
· Special Precautions:	Warning: Corrosive substances
· Danger Code (Kemler):	80
· EMS Number:	F-A, S-B
· Segregation Groups	Alkalis
· 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":	UN3267, Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched, N-Aminoethylpiperazine), 8, III

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)

None of the ingredients is listed.

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Section 311/312 (Hazardous Chemical Inventory Reporting)

84852-15-3	4-Nonylphenol, branched	A	40-50%
140-31-8	N-(2-Aminoethyl)piperazine	A, C	10-20%

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)

All ingredients are listed.

Proposition 65
Chemicals Known to Cause Cancer

None of the ingredients is listed.

Chemicals Known to Cause Reproductive Toxicity for Females

None of the ingredients is listed.

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)

None of the ingredients is listed.

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:

All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients is listed.

Canadian Ingredient Disclosure list (limit 1%)

140-31-8	N-(2-Aminoethyl)piperazine
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica

Chinese Chemical Inventory of Existing Chemical Substances:

All ingredients are listed.

Japanese Existing and New Chemical Substance List:

All ingredients are listed.

Korean Existing Chemical Inventory:

All ingredients are listed.

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European Pre-registered substances:

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140-31-8	N-(2-Aminoethyl)piperazine
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica

REACH - Substances of Very High Concern (SVHC) List:

84852-15-3	4-Nonylphenol, branched	40-50%
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Restriction of Hazardous Substances Directive (RoHS) list:

None of the ingredients is listed.

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
 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)

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TOXLINE: US NLM bibliographic database search system

TSCA: US Toxic Substance Control Act

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