

Resinlah AN ELLSWORTH ADHESIVES COMPANY 🙆

ECTION 1: Identification	
1. Identification	
Product form	: Mixture
Product name	: EP965 Clear B
.2. Recommended use and rest	
Recommended use	: Epoxy hardener
Restrictions on use	: Product for industrial use only
.3. Supplier	
ResinLab, LLC N109 W13300 Ellsworth Drive Germantown, WI 53022 - United State: T 1-877-259-1669 <u>msds@resinlab.com</u> - <u>www.resinlab.co</u>	
4. Emergency telephone numb	ber de la constant de
Emergency number	: CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)
ECTION 2: Horord/o) identifi	ection
ECTION 2: Hazard(s) identifie	
1. Classification of the substar	ice or mixture
HS US classification	
Skin corrosion/irritation Category 1B Skin sensitization, Category 1 Reproductive toxicity Category 2	<ul> <li>H314 Causes severe skin burns and eye damage</li> <li>H317 May cause an allergic skin reaction</li> <li>H361 Suspected of damaging fertility or the unborn child</li> </ul>
ull text of H statements : see section 16	6
	ing precautionary statements
HS US labeling Hazard pictograms (GHS US)	
Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H361 - Suspected of damaging fertility or the unborn child
Precautionary statements (GHS US)	<ul> <li>P201 - Obtain special instructions before use.</li> <li>P202 - Do not handle until all safety precautions have been read and understood.</li> <li>P260 - Do not breathe dust/fume/gas/mist/vapors/spray.</li> <li>P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.</li> <li>P264 - Wash hands, forearms and face thoroughly after handling.</li> <li>P272 - Contaminated work clothing must not be allowed out of the workplace.</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.</li> <li>P302+P352 - If on skin: (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</li> </ul>

# Safety Data Sheet

ccording to Federal Register / Vol. 77, No.	58 / Monday, March 26, 2012 / Rules and Regulations		
2.3. Other hazards which do	not result in classification		
No additional information available			
2.4. Unknown acute toxicity (	GHS US)		
Not applicable			
SECTION 3: Composition/Ir	formation on ingredients		
3.1. Substances			
Not applicable			
3.2. Mixtures			
Name		Product identifier	%
Polyamide resin		(CAS-No.) 68082-29-1	30 – 50
4-Nonylphenol, branched		(CAS-No.) 84852-15-3	30 – 50
N-(2-Aminoethyl)piperazine		(CAS-No.) 140-31-8	10 – 30
Triethylenetetramine		(CAS-No.) 112-24-3	1 – 5
First-aid measures general	: Call a physician immediately.		
4.1. Description of first aid m			
First-aid measures after inhalation		d keep comfortable for breathing. If experien r or a doctor.	cing respiratory
First-aid measures after skin contac	ct : Rinse immediately with plenty contaminated clothing. Call a p	of water for 15 minutes. Remove/Take off im hysician immediately.	mediately all
First-aid measures after eye contac		ghly with water for at least 15 minutes. Remo ue rinsing. Call a physician immediately.	ve contact lenses,
First-aid measures after ingestion	: Rinse mouth. Do not induce vo	omiting. Call a physician immediately.	
4.2. Most important symptom	is and effects (acute and delayed)		
Symptoms/effects after skin contact	t : Burns. May cause an allergic s	kin reaction.	
Symptoms/effects after eye contact	: Serious damage to eyes.		
Symptoms/effects after ingestion	: Burns.		
4.3. Immediate medical atten	tion and special treatment, if necessary		
Treat symptomatically.			
SECTION 5: Fire-fighting m	easures		
5.1. Suitable (and unsuitable)	extinguishing media		
5.1. Suitable (and unsuitable) Suitable extinguishing media	extinguishing media : Water spray. Dry powder. Foar	m. Carbon dioxide.	

Suitable extinguishing media Unsuitable extinguishing media	<ul><li>Water spray. Dry powder. Foam. Carbon dioxide.</li><li>Do not use water jet to extinguish.</li></ul>
5.2. Specific hazards arising from the che	emical
Hazardous decomposition products in case of fire	: Toxic fumes may be released, Carbon oxides (CO, CO2), Nitrogen oxides
5.3. Special protective equipment and pre	ecautions for fire-fighters
Firefighting instructions	: Complete protective clothing. Self-contained breathing apparatus.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
<b>SECTION 6: Accidental release meas</b>	ures
6.1. Personal precautions, protective equ	ipment and emergency procedures
General measures	: Avoid contact with skin and eyes. Avoid inhalation of the product. Ventilate spillage area. Do NOT breathe (dust, vapor, mist, gas).
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment. Do not allow	to enter drains or water courses.
6.3. Methods and material for containn	
For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, includ	
Storage conditions	: Store locked up. Store in a well-ventilated place. Keep cool.
SECTION 8: Exposure controls/per	sonal protection
8.1. Control parameters	
4-Nonylphenol, branched (84852-15-3)	
Not applicable	
Not applicable N-(2-Aminoethyl)piperazine (140-31-8)	
Not applicable N-(2-Aminoethyl)piperazine (140-31-8) Not applicable	
Not applicable N-(2-Aminoethyl)piperazine (140-31-8) Not applicable Polyamide resin (68082-29-1)	
Not applicable           N-(2-Aminoethyl)piperazine (140-31-8)           Not applicable           Polyamide resin (68082-29-1)           Not applicable	
Not applicableN-(2-Aminoethyl)piperazine (140-31-8)Not applicablePolyamide resin (68082-29-1)Not applicableTriethylenetetramine (112-24-3)	1 ppm (skin)
Not applicable           N-(2-Aminoethyl)piperazine (140-31-8)           Not applicable           Polyamide resin (68082-29-1)           Not applicable	1 ppm (skin)
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA       WEEL TWA	
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.	
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA       WEEL TWA	1 ppm (skin)      Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.	: Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls         8.3.       Individual protection measures/Period	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls         8.3.       Individual protection measures/Pee         Hand protection:	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls         8.3.       Individual protection measures/Pee         Hand protection:         Protective gloves	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls         8.3.       Individual protection measures/Pee         Hand protection:         Protective gloves         Eye protection:	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls         8.3.       Individual protection measures/Pee         Hand protection:         Protective gloves         Eye protection:         Safety glasses with side shields	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>
Not applicable         N-(2-Aminoethyl)piperazine (140-31-8)         Not applicable         Polyamide resin (68082-29-1)         Not applicable         Triethylenetetramine (112-24-3)         AIHA         WEEL TWA         8.2.       Appropriate engineering controls         Appropriate engineering controls         Environmental exposure controls         8.3.       Individual protection measures/Pe         Hand protection:         Protective gloves         Eye protection:         Safety glasses with side shields         Skin and body protection:	<ul> <li>Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.</li> <li>Avoid release to the environment.</li> </ul>

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

9.1. Information on basic physical and ch	nemical properties
Physical state	: Liquid
Color	: Amber
Odor	: characteristic
Odor threshold	: No data available
рН	: 11 Estimated
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 176 °C
Flash point	: > 99 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.96 g/cm <sup>3</sup>
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
VOC content	No data available

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

Acids. Bases (Alkalis). Oxidizing agent. May be corrosive to some metals. Peroxides. N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. . Nitrous acid and nitrosating agents.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Refer to section 5.2 for hazardous decomposition products during combustion.

#### **SECTION 11: Toxicological information**

11.1. Information on toxicological effects

EN (English US)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Acute toxicity (oral)	: Not classified
cute toxicity (dermal)	: Not classified
cute toxicity (inhalation)	: Not classified
4-Nonylphenol, branched (84852-15-3)	
LD50 oral rat	1412 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 14 day(s))
ATE US (oral)	1412 mg/kg body weight
N-(2-Aminoethyl)piperazine (140-31-8)	
LD50 oral rat	2097 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	866 mg/kg bw/day (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
ATE US (oral)	2097 mg/kg body weight
ATE US (dermal)	866 mg/kg body weight
Polyamide resin (68082-29-1)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
Triethylenetetramine (112-24-3)	
LD50 oral rat	1716 mg/kg body weight (BASF test, Rat, Experimental value, Oral)
LD50 dermal rabbit	1465 mg/kg body weight (BASF test, Rabbit, Experimental value, Dermal)
ATE US (oral)	1716 mg/kg body weight
ATE US (dermal)	1465 mg/kg body weight
kin corrosion/irritation	: Causes severe skin burns.
	pH: 11 Estimated
erious eye damage/irritation	: Assumed to cause serious eye damage
	pH: 11 Estimated
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Serm cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
· · ·	
4-Nonylphenol, branched (84852-15-3)	400 mm/line has the united Animal and Control line. OFOD Onidaline, 407 (Demostral Develop) 00 Dev
LOAEL (oral,rat,90 days)	400 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	100 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
N-(2-Aminoethyl)piperazine (140-31-8)	
STOT-repeated exposure	Causes damage to organs (respiratory system) through prolonged or repeated exposure (Inhalation).
Polyamide resin (68082-29-1)	
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Aspiration hazard	: Not classified
Symptoms/effects after skin contact	: Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

## Safety Data Sheet

cording to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations		
SECTION 12: Ecological information 12.1. Toxicity		
Ecology - water	: Very toxic to aquatic life with long lasting effects.	
4-Nonylphenol, branched (84852-15-	3)	
EC50 - Crustacea [1]	84 μg/l (ASTM E729-88, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Lethal)	
NOEC chronic fish	0.006 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '91 d'	
N-(2-Aminoethyl)piperazine (140-31-8	8)	
LC50 - Fish [1]	2190 mg/l (96 h, Pimephales promelas, Static system, Fresh water, Experimental value)	
EC50 - Crustacea [1]	58 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Experimental value, GLP)	
ErC50 algae	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Fresh water, Experimental value, GLP)	
Polyamide resin (68082-29-1)		
LC50 - Fish [1]	7.07 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, Nominal concentration)	
EC50 - Crustacea [1]	7.07 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)	
ErC50 algae	4.34 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Experimental value, Nominal concentration)	
Triethylenetetramine (112-24-3)		
LC50 - Fish [1]	495 mg/l (96 h, Pimephales promelas, Fresh water, Literature study)	
EC50 - Crustacea [1]	31.1 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Literature study)	

12.2. Persistence and degradability

4-Nonylphenol, branched (84852-15-3)		
Persistence and degradability	Not readily biodegradable in water.	
N-(2-Aminoethyl)piperazine (140-31-8)		
Persistence and degradability	Not readily biodegradable in water.	
Chemical oxygen demand (COD)	0.56 g O <sub>2</sub> /g substance	
Polyamide resin (68082-29-1)		
Persistence and degradability	Not readily biodegradable in water.	
Triethylenetetramine (112-24-3)		
Persistence and degradability	Not readily biodegradable in water.	

12.3. Bioaccumulative potential

4-Nonylphenol, branched (84852-15-3)

BCF - Fish [1]	1200 – 1300 (Equivalent or similar to OECD 305, 16 day(s), Gasterosteus aculeatus, Flow- through system, Salt water, Experimental value, Fresh weight)	
Partition coefficient n-octanol/water (Log Pow)	5.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 23 °C)	
Bioaccumulative potential	Potential for bioaccumulation (500 $\leq$ BCF $\leq$ 5000).	
N-(2-Aminoethyl)piperazine (140-31-8)		
BCF - Fish [1]	0.3 – 6.3 (OECD 305: Bioconcentration: Flow-Through Fish Test, 6 week(s), Cyprinus carpio, Flow-through system, Fresh water, Read-across)	
Partition coefficient n-octanol/water (Log Pow)	-1.48 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Polyamide resin (68082-29-1)		
BCF - Other aquatic organisms [1]	77.4 l/kg (BCFBAF v3.01, QSAR, Fresh weight)	
Partition coefficient n-octanol/water (Log Pow)	0.3 – 3.55 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Triethylenetetramine (112-24-3)	
Partition coefficient n-octanol/water (Log Pow)	-2.65 (Estimated value, KOWWIN)
Bioaccumulative potential	Not bioaccumulative.

## 12.4. Mobility in soil

4-Nonylphenol, branched (84852-15-3)	
Surface tension	38.9 mN/m (20 °C, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.
N-(2-Aminoethyl)piperazine (140-31-8)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.57 (log Koc, Read-across, GLP)
Ecology - soil	Low potential for mobility in soil.
Polyamide resin (68082-29-1)	
Surface tension	63.93 mN/m (23 °C, 0.15 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	6.5 – 8.6 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.
Triethylenetetramine (112-24-3)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.885 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

### 12.5. Other adverse effects

No additional information available

SECTION 13: Disposal consideration	ns
13.1. Disposal methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport information	
Department of Transportation (DOT) In accordance with DOT	
Transport document description (DOT)	: UN3267 Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched ; N-(2- Aminoethyl)piperazine), 8, III
UN-No.(DOT)	: UN3267
Proper Shipping Name (DOT)	: Corrosive liquid, basic, organic, n.o.s.
	4-Nonylphenol, branched ; N-(2-Aminoethyl)piperazine
Class (DOT)	: 8 - Class 8 - Corrosive material 49 CFR 173.136
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 8 - Corrosive
	CORROSIVE 8
Dangerous for the environment	: Yes

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Marine pollutant	: Yes
	W N
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Symbols	: G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102)	<ul> <li>IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HD2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).</li> <li>T7 - 4 178.274(d)(2) Normal</li></ul>
	following: Degree of filling = $97 / 1 + a$ (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters",52 - Stow "separated from" acids
Emergency Response Guide (ERG) Number	: 153
Other information	: No supplementary information available.
Transportation of Dangerous Goods	
Not applicable	
Transport by sea	
Transport document description (IMDG)	: UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (4-Nonylphenol, branched ; N-(2- Aminoethyl)piperazine), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
UN-No. (IMDG)	: 3267
	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
	4-Nonylphenol, branched ; N-(2-Aminoethyl)piperazine
Class (IMDG)	: 8 - Corrosive substances
Packing group (IMDG)	: III - substances presenting low danger
Limited quantities (IMDG)	: 5L
Marine pollutant	: Yes
Air transport	•
Transport document description (IATA)	: UN 3267 Corrosive liquid, basic, organic, n.o.s. (4-Nonylphenol, branched; N-(2- Aminoethyl)piperazine), 8, III, ENVIRONMENTALLY HAZARDOUS
UN-No. (IATA)	: 3267
	Ormania limita haria annatia na a

: Corrosive liquid, basic, organic, n.o.s. 4-Nonylphenol, branched ; N-(2-Aminoethyl)piperazine

Proper Shipping Name (IATA)

Safety Data Sheet

Class (IATA)	: 8 - Corrosives		
Packing group (IATA)	: III - Low dange	r	
ECTION 15: Regulatory info	ormation		
5.1. US Federal regulations			
Chemical(s) subject to the reporting 1986 and 40 CFR Part 372.	requirements of Section 313	or Title III of the Superfund An	nendments and Reauthorization Act (SARA) of
4-Nonylphenol, branched		CAS-No. 84852-15-3	30 – 50%
4-Nonylphenol, branched (84852-	15-3)		
Listed on the United States TSCA ( Subject to reporting requirements of			
EPA TSCA Regulatory Flag	SP - SP - indic	ates a substance that is identi	fied in a proposed Significant New Use Rule.
N-(2-Aminoethyl)piperazine (140-	31-8)		
Listed on the United States TSCA (	Toxic Substances Control Act)	inventory	
Polyamide resin (68082-29-1)			
Listed on the United States TSCA (	Toxic Substances Control Act)	inventory	
EPA TSCA Regulatory Flag			
Triethylenetetramine (112-24-3)			
Listed on the United States TSCA (	Toxic Substances Control Act)	inventory	
5.2. International regulations			
ANADA			
4-Nonylphenol, branched (84852-	•		
Listed on the Canadian DSL (Dome	estic Substances List)		
N-(2-Aminoethyl)piperazine (140-	,		
Listed on the Canadian DSL (Dome	estic Substances List)		
Polyamide resin (68082-29-1)			
Listed on the Canadian DSL (Dome	estic Substances List)		
Triethylenetetramine (112-24-3)			
Listed on the Canadian DSL (Dome	estic Substances List)		
U-Regulations ontains the following REACH ingredie	ent(s): 4-Nonylphenol, branche	ed (EC 284-325-5, CAS 84852	-15-3)
4-Nonylphenol, branched (84852-	15-3)		
Listed on the EEC inventory EINEC	S (European Inventory of Exis	ting Commercial Chemical Su	bstances)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

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

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Polyamide resin (68082-29-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Triethylenetetramine (112-24-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### **National regulations**

4-Nonylphenol, branched (84852-15-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

N-(2-Aminoethyl)piperazine (140-31-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)	
Polyamide resin (68082-29-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)	
Triethylenetetramine (112-24-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)	
15.3. US State regulations	

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
N-(2-Aminoethyl)piperazine(140-31-8)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Triethylenetetramine(112-24-3)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

### **SECTION 16: Other information**

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

```
: 06/05/2024
```

#### Full text of H-phrases:

H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

#### SDS US - ResinLab

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.