

# SAFETY DATA SHEET



## Nycote 88 Tinted Black

### Section 1. Identification

**GHS product identifier** : Nycote 88 Tinted Black  
**Chemical name** : Nycote 88  
**Product code** : Not available.  
**Other means of identification** : Not available.  
**Product type** : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** : Not available.

**Manufacturer** : Nycote Laboratories Corporation  
 12750 Raymer St., Bldg. A-3  
 North Hollywood, California 91605  
 Tel: 1-(818)-764-9498

**Emergency telephone number (with hours of operation)** : ChemTel  
 1-813-248-0585  
 1-800-255-3924  
 24/7

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2  
 SKIN IRRITATION - Category 2  
 EYE IRRITATION - Category 2A  
 SKIN SENSITIZATION - Category 1  
 TOXIC TO REPRODUCTION (Unborn child) - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (bladder, hearing organs, kidneys, liver, respiratory system) - Category 2  
 AQUATIC HAZARD (ACUTE) - Category 2  
 AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H225 - Highly flammable liquid and vapor.  
 H319 - Causes serious eye irritation.  
 H315 - Causes skin irritation.  
 H317 - May cause an allergic skin reaction.  
 H361 - Suspected of damaging the unborn child.  
 H373 - May cause damage to organs through prolonged or repeated exposure. (bladder, hearing organs, kidneys, liver, respiratory system)

## Section 2. Hazards identification

H401 - Toxic to aquatic life.  
H412 - Harmful to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

- : P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P233 - Keep container tightly closed.
- P273 - Avoid release to the environment.
- P260 - Do not breathe vapor.
- P264 - Wash hands thoroughly after handling.
- P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

#### Response

- : P314 - Get medical attention if you feel unwell.
- P308 + P313 - IF exposed or concerned: Get medical attention.
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
- P333 + P313 - If skin irritation or rash occurs: Get medical attention.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 - If eye irritation persists: Get medical attention.

#### Storage

- : P405 - Store locked up.
- P403 - Store in a well-ventilated place.
- P235 - Keep cool.

#### Disposal

- : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Hazards not otherwise classified

- : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Chemical name** : Nycote 88
- Other means of identification** : Not available.

Ingredient name	%	CAS number
Ethanol	30 - 60	64-17-5
Toluene	10 - 30	108-88-3
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	1 - 5	25068-38-6
Diphenylamine	0.1 - 1	122-39-4
Aniline	0.01 - 0.1	62-53-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

## Section 4. First aid measures

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet or water-based fire extinguishers.

**Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
halogenated compounds

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## Section 6. Accidental release measures

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

**Spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : **Store between the following temperatures: 18.33 to 26.67°C (65 to 80°F). Keep from freezing.** Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### United States

##### Occupational exposure limits

Ingredient name	Exposure limits
Ethanol	<p><b>ACGIH TLV (United States, 3/2017).</b>            STEL: 1000 ppm 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b>            TWA: 1000 ppm 10 hours.            TWA: 1900 mg/m<sup>3</sup> 10 hours.</p> <p><b>OSHA PEL (United States, 6/2016).</b>            TWA: 1000 ppm 8 hours.            TWA: 1900 mg/m<sup>3</sup> 8 hours.</p>
Toluene	<p><b>OSHA PEL Z2 (United States, 2/2013).</b>            TWA: 200 ppm 8 hours.            CEIL: 300 ppm            AMP: 500 ppm 10 minutes.</p> <p><b>NIOSH REL (United States, 10/2016).</b>            TWA: 100 ppm 10 hours.            TWA: 375 mg/m<sup>3</sup> 10 hours.            STEL: 150 ppm 15 minutes.            STEL: 560 mg/m<sup>3</sup> 15 minutes.</p> <p><b>ACGIH TLV (United States, 3/2017).</b>            TWA: 20 ppm 8 hours.</p>
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin Diphenylamine	<p>None.</p> <p><b>ACGIH TLV (United States, 3/2017).</b>            TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>NIOSH REL (United States, 10/2016).</b>            TWA: 10 mg/m<sup>3</sup> 10 hours.</p>
Aniline	<p><b>ACGIH TLV (United States, 3/2017). Absorbed through skin.</b>            TWA: 2 ppm 8 hours.            TWA: 7.6 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL (United States, 6/2016). Absorbed through skin.</b>            TWA: 5 ppm 8 hours.            TWA: 19 mg/m<sup>3</sup> 8 hours.</p>

#### Canada

##### Occupational exposure limits

Ingredient name	Exposure limits
Ethanol	<p><b>CA Alberta Provincial (Canada, 4/2009).</b>            8 hrs OEL: 1000 ppm 8 hours.            8 hrs OEL: 1880 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 7/2016).</b>            STEL: 1000 ppm 15 minutes.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b>            STEL: 1000 ppm 15 minutes.</p> <p><b>CA Quebec Provincial (Canada, 1/2014).</b>            TWAEV: 1000 ppm 8 hours.            TWAEV: 1880 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013).</b>            STEL: 1250 ppm 15 minutes.            TWA: 1000 ppm 8 hours.</p>
Toluene	<p><b>CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.</b>            8 hrs OEL: 50 ppm 8 hours.            8 hrs OEL: 188 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA British Columbia Provincial (Canada, 7/2016).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 7/2015).</b>            TWA: 20 ppm 8 hours.</p> <p><b>CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.</b>            TWAEV: 50 ppm 8 hours.            TWAEV: 188 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b></p>

## Section 8. Exposure controls/personal protection

<p>Diphenylamine</p>	<p>STEL: 60 ppm 15 minutes.          TWA: 50 ppm 8 hours.  <b>CA Alberta Provincial (Canada, 4/2009).</b>          8 hrs OEL: 10 mg/m<sup>3</sup> 8 hours.  <b>CA British Columbia Provincial (Canada, 7/2016).</b>          TWA: 10 mg/m<sup>3</sup> 8 hours.  <b>CA Ontario Provincial (Canada, 7/2015).</b>          TWA: 10 mg/m<sup>3</sup> 8 hours.  <b>CA Quebec Provincial (Canada, 1/2014).</b>          TWAEV: 10 mg/m<sup>3</sup> 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013).</b>          STEL: 20 mg/m<sup>3</sup> 15 minutes.          TWA: 10 mg/m<sup>3</sup> 8 hours.</p>
<p>Aniline</p>	<p><b>CA British Columbia Provincial (Canada, 7/2016). Absorbed through skin.</b>          TWA: 2 ppm 8 hours.  <b>CA Ontario Provincial (Canada, 7/2015). Absorbed through skin.</b>          TWA: 2 ppm 8 hours.  <b>CA Quebec Provincial (Canada, 1/2014). Absorbed through skin.</b>          TWAEV: 2 ppm 8 hours.          TWAEV: 7.6 mg/m<sup>3</sup> 8 hours.  <b>CA Alberta Provincial (Canada, 4/2009). Absorbed through skin.</b>          8 hrs OEL: 7.6 mg/m<sup>3</sup> 8 hours.          8 hrs OEL: 2 ppm 8 hours.  <b>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.</b>          STEL: 4 ppm 15 minutes.          TWA: 2 ppm 8 hours.</p>

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.



## Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid. [Clear.]
- Color** : Black.
- Odor** : Alcohol-like.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 170°C (338°F)
- Flash point** : Open cup: 18.333°C (65°F) [Cleveland.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : 21 to 27 [Zahn #2 cup @ 21 °C (70 °F)]
- Flow time (ISO 2431)** : Not available.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.



## Section 10. Stability and reactivity

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	7 g/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
Diphenylamine	LD50 Oral	Rat	1120 mg/kg	-
	LC50 Inhalation Gas.	Rat	250 ppm	1 hours
Aniline	LD50 Dermal	Rat	1400 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
Toluene	Eyes - Moderate irritant	Rabbit	-	100 µl	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 µg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 µl	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 µl	-
Aniline	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-

#### Sensitization

There is no data available.

#### Mutagenicity

There is no data available.

#### Carcinogenicity

##### Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-
Aniline	-	3	-

#### Reproductive toxicity

There is no data available.

#### Teratogenicity

There is no data available.

## Section 11. Toxicological information

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 3	Not applicable.	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Toluene	Category 2	Not determined	bladder, hearing organs, kidneys, liver and respiratory system
Diphenylamine	Category 2	Not determined	Not determined
Aniline	Category 1	Not determined	Not determined

### Aspiration hazard

Name	Result
Toluene	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.

## Section 11. Toxicological information

**Potential delayed effects** : No known significant effects or critical hazards.

**Long term exposure**

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

**Potential chronic health effects**

**General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : Suspected of damaging the unborn child.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

There is no data available.

## Section 12. Ecological information

**Toxicity**

Product/ingredient name	Result	Species	Exposure
Ethanol	Acute EC50 1074 mg/L Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 5680 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 11000000 µg/L Marine water	Fish - Alburnus alburnus	96 hours
	Chronic NOEC 4.995 mg/L Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks
Toluene	Acute EC50 11600 µg/L Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/L Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Diphenylamine	Chronic NOEC 2 mg/L Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 2.17 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 0.31 mg/L Fresh water	Daphnia - Daphnia magna	48 hours
Aniline	Acute LC50 2.2 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.37 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 9.73 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 19 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 44 µg/L Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 80 µg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 7600 µg/L Fresh water	Fish - Carassius auratus - Egg	4 days
Chronic EC10 0.02 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours	
Chronic NOEC 4 µg/L Fresh water	Daphnia - Daphnia magna	21 days	
	Chronic NOEC 0.422 mg/L Fresh water	Fish - Pimephales promelas - Embryo	32 days

**Persistence and degradability**

There is no data available.

**Bioaccumulative potential**

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Ethanol	-0.35	-	low
Toluene	2.73	90	low
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	2.64 to 3.78	31	low
Diphenylamine	3.5	151.36	low
Aniline	0.91	2.6	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.





## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Toluene	108-88-3	Listed	U220

## Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
<b>UN number</b>	UN1993	UN1993	UN1993	UN1993
<b>UN proper shipping name</b>	FLAMMABLE LIQUIDS, N.O.S. (Ethanol, Toluene)	FLAMMABLE LIQUIDS, N.O.S. (Ethanol, Toluene)	FLAMMABLE LIQUIDS, N.O.S. (Ethanol, Toluene)	FLAMMABLE LIQUIDS, N.O.S. (Ethanol, Toluene)
<b>Transport hazard class(es)</b>	3 	3 	3 	3 
<b>Packing group</b>	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.

AERG : 128

## Section 14. Transport information

- DOT-RQ Details** : Toluene 1000 lbs / 454 kg [137.86 gal / 521.84 L]
- Additional information**
- DOT Classification** : **Reportable quantity** 5133.5 lbs / 2330.6 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).
- IMDG** : **Emergency schedules** F-E, S-E
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

- U.S. Federal regulations** : **TSCA 8(a) PAIR:** Diphenylamine  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 307:** Toluene; Nitrobenzene  
**Clean Water Act (CWA) 311:** Toluene; Aniline; Nitrobenzene

- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed
- Clean Air Act Section 602 Class I Substances** : Not listed
- Clean Air Act Section 602 Class II Substances** : Not listed
- DEA List I Chemicals (Precursor Chemicals)** : Not listed
- DEA List II Chemicals (Essential Chemicals)** : Listed

**SARA 302/304**

**Composition/information on ingredients**

Name	EHS	SARA 302 TPQ		SARA 304 RQ	
		(lbs)	(gallons)	(lbs)	(gallons)
Aniline	Yes.	1000	117.6	5000	587.9
Nitrobenzene	Yes.	10000	999.5	1000	99.9

- SARA 304 RQ** : 2222222.2 lbs / 1008888.9 kg

**SARA 311/312**

- Classification** : Fire hazard  
Immediate (acute) health hazard  
Delayed (chronic) health hazard

**Composition/information on ingredients**

## Section 15. Regulatory information

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Ethanol	Yes.	No.	No.	Yes.	No.
Toluene	Yes.	No.	No.	Yes.	Yes.
Reaction Product: Bisphenol-A-(Epichlorhydrin); Epoxy Resin	No.	No.	No.	Yes.	No.
Diphenylamine	No.	No.	No.	Yes.	Yes.
Aniline	Yes.	No.	No.	Yes.	Yes.

### SARA 313

	Product name	CAS number
<b>Form R - Reporting requirements</b>	Toluene	108-88-3
<b>Supplier notification</b>	Toluene	108-88-3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts** : The following components are listed: Ethanol; Toluene

**New York** : The following components are listed: Toluene

**New Jersey** : The following components are listed: Ethanol; Toluene

**Pennsylvania** : The following components are listed: Ethanol; Toluene

### California Prop. 65

**⚠ WARNING:** This product can expose you to Nitrobenzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Aniline, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
Toluene	-	Yes.
Aniline	Yes.	-
Nitrobenzene	-	-

### Canada

#### Canadian lists

**Canadian NPRI** : The following components are listed: Ethanol; Toluene

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : All components are listed or exempted.

## Section 16. Other information

### Procedure used to derive the classification

## Section 16. Other information

Classification	Justification
FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (bladder, hearing organs, kidneys, liver, respiratory system) - Category 2 AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

### History

**Date of issue mm/dd/yyyy** : 09/30/2017  
**Date of previous issue** : 03/15/2016  
**Version** : 2  
**Prepared by** : KMK Regulatory Services Inc.

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