

1 Identification of the substance/mixture and of the company

- **Product identifier**
- **Trade name:** EP-799 Black Potting Compound - Part B
- **Application of the substance / the mixture** *Black potting compound component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Applied Ink Solutions
 17 Hampshire Drive, Unit 8
 Hudson, NH 03051
 USA
- **Information department:**
 Product Safety
 Email: sales@appliedinksolutions.com
- **Emergency telephone number:**
 Chemtrec USA Emergency : 800-424-9300
 Chemtrec International Emergency : 703-527-3887
 Applied Ink Solutions : 603-595-6221

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

STOT SE 1 H370 Causes damage to organs.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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

Flam. Liq. 4 H227 Combustible liquid.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05



GHS08



GHS07

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· Signal word *Danger*
· Hazard-determining components of labeling:
*Proprietary Curing Agent**N-(aminoethyl)piperazine*
· Hazard statements
*H227 Combustible liquid.**H314 Causes severe skin burns and eye damage.**H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.**H317 May cause an allergic skin reaction.**H361 Suspected of damaging fertility or the unborn child.**H370 Causes damage to organs.**H372 Causes damage to organs through prolonged or repeated exposure.*
· Precautionary statements
*P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.**P261 Avoid breathing dust/fume/gas/mist/vapors/spray**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P333+P313 If skin irritation or rash occurs: Get medical advice/attention.**P337+P313 If eye irritation persists: Get medical advice/attention.**P314 Get medical advice/attention if you feel unwell.**P370+P378 In case of fire: Use for extinction: Alcohol resistant foam.**P370+P378 In case of fire: Use for extinction: Fire-extinguishing powder.**P370+P378 In case of fire: Use for extinction: Carbon dioxide.**P302+P352 IF ON SKIN: Wash with plenty of soap and water.**P403+P235 Store in a well-ventilated place. Keep cool.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*
· Classification system:
· NFPA ratings (scale 0 - 4)
*Health = 3**Fire = 2**Reactivity = 0*
· HMIS-ratings (scale 0 - 4)
*Health = *3**Fire = 2**Reactivity = 0*
· Other hazards
· Results of PBT and vPvB assessment
· PBT: *Not applicable.*
· vPvB: *Not applicable.*
3 Composition/information on ingredients
· Chemical characterization: Mixtures
· Description: *Mixture of the substances listed below with nonhazardous additions.*

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· Dangerous components:

	Proprietary Curing Agent ⚠ Resp. Sens. 1, H334; Repr. 2, H361; STOT SE 1, H370; STOT RE 1, H372; ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	75-100%
140-31-8	N-(aminoethyl)piperazine ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Flam. Liq. 4, H227; Aquatic Chronic 3, H412	5-15%

4 First-aid measures
· Description of first aid measures
· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact:

Wash eyes immediately with a large amount of water or normal saline, occasionally lifting upper and lower eye lids until no evidence of chemical remains (about 20 minutes). Remove contact lenses if present and easy to remove. Seek immediate medical attention.

· After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· Information for doctor:

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed** Treat symptomatically.

5 Fire-fighting measures
· Extinguishing media
· Suitable extinguishing agents:

Alcohol resistant foam

Fire-extinguishing powder

ABC powder

· For safety reasons unsuitable extinguishing agents: Water with full jet

· Special hazards arising from the substance or mixture No further relevant information available.

· Advice for firefighters
· Protective equipment: Wear SCBA.

6 Accidental release measures
· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

· Environmental precautions: Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

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Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

140-31-8	N-(aminoethyl)piperazine	6.4 mg/m ³
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· **PAC-2:**

140-31-8	N-(aminoethyl)piperazine	71 mg/m ³
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· **PAC-3:**

140-31-8	N-(aminoethyl)piperazine	420 mg/m ³
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7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaust at the workplace.

Open and handle container with care.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respirator available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and containers:** No special requirements.

· **Information about storage in one common storage facility:** Store away from oxidizing agents.

· **Further information about storage conditions:**

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Keep container tightly sealed.

· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from food and beverages.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

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Avoid contact with the eyes and skin.

· **Respiratory equipment:**

In case of low exposure, use cartridge respirator. In case of intensive or longer exposure, use SCBA.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves** Nitrile rubber, NBR

· **Penetration time of glove material** Contact glove manufacture for break-through time.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Red-brown
Odor:	Amine-like
Odor threshold:	Not determined.

pH-value:	Not determined.
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· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	207 °C (405 °F)

Flash point:	92 °C (198 °F)
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Flammability (solid, gaseous):	Not applicable.
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Ignition temperature:	315 °C (599 °F)
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Decomposition temperature:	Not determined.
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Auto igniting:	Product is not selfigniting.
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Danger of explosion:	Not determined.
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· **Explosion limits:**

Lower:	2.1 Vol %
Upper:	10.5 Vol %

Vapor pressure at 20 °C (68 °F):	0.1 hPa
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Density:	See other information
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	1.6-2.3 (BuAc=1)

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- | | |
|---|--|
| · Solubility in / Miscibility with Water: | Water miscible No |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 0.0 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal use conditions
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
Heat, flames and sparks. Extremes of temperature and direct sunlight.
Contact with incompatible materials.
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

140-31-8 N-(aminoethyl)piperazine

Oral	LD50	2140 mg/kg (Rat)
Dermal	LD50	880 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

None of the ingredients are listed.

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· **NTP (National Toxicology Program)**

None of the ingredients are listed.

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

None of the ingredients are listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of as regular garbage/trash. Do not allow product to reach sewage system.

Disposal must be made in accordance with Federal, State, and Local regulations.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made in accordance with Federal, State, and Local regulations.

14 Transport information

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** Not Regulated

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** Not Regulated

· **Transport hazard class(es)**

· **DOT, ADR, ADN, IMDG, IATA**

· **Class** Not Regulated

· **Packing group**

· **DOT, ADR, IMDG, IATA** Not Regulated

· **Environmental hazards:**

Not applicable.

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- | | |
|--|-----------------|
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Not Regulated |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed or comply with TSCA regulations.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

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

None of the ingredients are listed.

- **California SCAQMD Rule 443.1 VOC's: No information available.**

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

- **Hazard pictograms**



GHS05 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Proprietary Curing Agent

N-(aminoethyl)piperazine

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· Hazard statements

- H227 Combustible liquid.
- H314 Causes severe skin burns and eye damage.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H361 Suspected of damaging fertility or the unborn child.
- H370 Causes damage to organs.
- H372 Causes damage to organs through prolonged or repeated exposure.

· Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P314 Get medical advice/attention if you feel unwell.
- P370+P378 In case of fire: Use for extinction: Alcohol resistant foam.
- P370+P378 In case of fire: Use for extinction: Fire-extinguishing powder.
- P370+P378 In case of fire: Use for extinction: Carbon dioxide.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:**· Other regulations, limitations and prohibitive regulations**

RoHS 2 2011/65/EU along with EU Directive 2002/95/EC – Waste from Electrical and Electronic Equipment (WEEE):

Applied Ink Solutions products do not exceed the amount of allowable levels concerning: Cadmium (Cd); Hexavalent Chromium (CrVI); Mercury (Hg); Lead (Pb); Polybrominated Biphenyls (PBB's) as bromide; Polybrominated Diphenyl Ethers (PBDEs) as bromide, decaBDE.

Applied Ink Solutions has confirmed with our precious metal suppliers that they do not use conflict minerals, as outlined in the **Dodd-Frank Wall Street Reform and Consumer Protection Act in Title XV, Section 1502.**

Registration, Evaluation and Authorization of Chemicals (REACH) & Substances of Very High Concern (SVHC): This product does not contain substances on the SVHC list.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 SDS: Product safety department

· Contact: Mr. Cole

· Revision History: New SDS 02/16/2017

· Date of preparation / last revision / 05/18/2017 Rev. 1

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 Flam. Liq. 4: Flammable liquids – Category 4
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Resp. Sens. 1: Respiratory sensitisation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
 STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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