# Safety Data Sheet

**Issue Date:** 03-Jul-2014 **Revision Date:** 07-Jul-2014 **Version** 1

## 1. IDENTIFICATION

**Product Identifier**
**Product Name** PC ROT TERMINATOR, HARDENER

**Other means of identification**
**SDS #** 140703-13

**UN/ID No** UN2735

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Adhesives.

**Details of the supplier of the safety data sheet**
**Supplier Address**
Protective Coatings Co.
221 S Third St.
Allentown, PA 18102 USA

**Emergency Telephone Number**
**Company Phone Number** 610-432-3543 / 800-220-2103
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Amber liquid **Physical State** Liquid **Odor** Ammonia

**Classification**

| | |
|---|---|
| Skin corrosion/irritation | Category 1 Sub-category C |
| Serious eye damage/eye irritation | Category 1 |
| Skin sensitization | Category 1 |

**Hazards Not Otherwise Classified (HNOC)**
May be harmful if swallowed

**Signal Word**
**Danger**

**Hazard Statements**
Causes severe skin burns and eye damage
May cause an allergic skin reaction

**Precautionary Statements - Prevention**
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Contaminated work clothing should not be allowed out of the workplace

**Precautionary Statements - Response**
Immediately call a poison center or doctor/physician
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 or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a poison center or doctor/physician
IF SWALLOWED: rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**
Store locked up

**Precautionary Statements - Disposal**
Dispose of contents/container to an approved waste disposal plant

**Other Hazards**
Toxic to aquatic life with long lasting effects
**Unknown Acute Toxicity**
90-95% of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---|---|---|
| TOFA, reaction products with TEPA | 68953-36-6 | 90-100 |
| Tetraethylenepentamine | 112-57-2 | <5 |

**If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

## 4. FIRST-AID MEASURES

**First Aid Measures**

**General Advice** Provide this SDS to medical personnel for treatment. After first aid, get appropriate in-plant, paramedic, or community medical support.

**Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical attention.

**Skin Contact** Wash with soap and water. Remove and wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**Inhalation** Remove to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

**Ingestion** Do not induce vomiting. Clean mouth with water and drink afterwards plenty of water. Seek medical attention.

**Most important symptoms and effects**

**Symptoms** May cause severe burns to skin, eyes and other body tissue. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. May cause nose, throat, and lung irritation. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. May cause delayed lung injury.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Skin and eye conditions may be aggravated by long term exposure.
Medical Conditions Aggravated by Long-Term Exposure: skin disorders, asthma, allergies and eye conditions.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical, Dry sand and Limestone powder.

**Unsuitable Extinguishing Media** Water.

**Specific Hazards Arising from the Chemical**
May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downward personnel must be evacuated. Burning produces obnoxious and toxic fumes.

**Hazardous Combustion Products** CO, CO2, ammonia, and nitrogen compounds.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Wear butyl rubber boots, gloves, and bodysuit. Keep containers cool with water spray. Wear positive pressure self-contained breathing apparatus (SCBA). Do not release runoff from fire control methods to sewers or waterways. NFPA Class IIIB.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Avoid breathing vapors, mist or gas. Remove any contaminated clothing and wash thoroughly before reuse. Evacuate personnel to safe areas.

**For Emergency Responders** Follow applicable OSHA regulations (29 CFR 1910.120).

**Environmental Precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so. For large spills, dike far ahead of liquid spill for later disposal.

**Methods for Clean-Up** Soak up in adsorbent material such as sand and collect in suitable containers. Residual resin may be removed using steam or hot soapy water. Dispose of contents/container to an approved waste disposal plant. For waste disposal, see section 13 of the SDS.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Wash face, hands, and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not breathe vapors or spray mist.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store contents under <90F (32C) . NFPA Class IIIB storage. Store locked up.

**Incompatible Materials** CAUTION! 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 other nitro sating agents. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Sodium hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines** The following information is given as general guidance

**Appropriate engineering controls**

**Engineering Controls** Provide general or local exhaust ventilation if product is sanded or ground.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Chemical safety goggles/faceshield.

**Skin and Body Protection** Wear protective gloves and protective clothing. Long sleeve shirts and trousers without cuffs.

Butyl-rubber, Nitrile rubber, Neoprene gloves, Polyvinyl Alcohol Gloves (PVA), Impervious gloves, The breakthrough time of the selected glove(s) must be greater than the intended use period.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical State** | Liquid | | |
| **Appearance** | Amber liquid | **Odor** | Ammonia |
| **Color** | Amber | **Odor Threshold** | Not determined |

| **Property** | **Values** | **Remarks • Method** |
|---|---|---|
| **pH** | Not determined | |
| **Melting Point/Freezing Point** | Not data | |
| **Boiling Point/Boiling Range** | > 200 °C / >390 °F | |
| **Flash Point** | 195 °C / 383 °F | CC (closed cup) |
| **Evaporation Rate** | Not determined | |
| **Flammability (Solid, Gas)** | Not determined | |
| **Upper Flammability Limits** | Not available | |
| **Lower Flammability Limit** | Not available | |
| **Vapor Pressure** | <21 mm Hg | @ 25°C (77°F) |
| **Vapor Density** | Not data | |
| **Specific Gravity** | Not determined | |
| **Water Solubility** | Negligible | |
| **Solubility in other solvents** | Not determined | |
| **Partition Coefficient** | Not determined | |
| **Auto-ignition Temperature** | Not available | |
| **Decomposition Temperature** | Not determined | |
| **Kinematic Viscosity** | Not determined | |
| **Dynamic Viscosity** | Not determined | |
| **Explosive Properties** | Not determined | |
| **Oxidizing Properties** | Not determined | |
| **Bulk Density** | 8.5 lbs/gallon @ 25°C | |

## 10. STABILITY AND REACTIVITY

**Reactivity**
Not reactive under normal conditions.

**Chemical Stability**
Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**
None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**
Keep out of reach of children.

**Incompatible Materials**
CAUTION! 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 other nitro sating agents. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids. Sodium hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.

**Hazardous Decomposition Products**
Nitric acid. Ammonia Nitrogen oxides (NOx). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO2). Nitrosamine.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

**Eye Contact** Causes severe eye damage.

**Skin Contact** Causes severe skin burns. May cause an allergic skin reaction.

**Inhalation** May cause irritation of respiratory tract.

**Ingestion** May be harmful if swallowed.

**Component Information**

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Tetraethylenepentamine 112-57-2 | = 2100 mg/kg ( Rat ) | = 660 mg/kg ( Rabbit ) | - |

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** May cause an allergic skin reaction.

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Target organ effects** Respiratory System, Eyes, Skin.

**Numerical measures of toxicity**
Product Information

**Unknown Acute Toxicity** 90-95% of the mixture consists of ingredient(s) of unknown toxicity.
**Oral LD50** > 3,500 mg/kg (rat)
**Dermal LD50** 8,000 mg/kg (rat)
**Inhalation LC50** No Data

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Toxic to aquatic life with long lasting effects.

**Component Information**

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Tetraethylenepentamine 112-57-2 | 2.1: 72 h Pseudokirchneriella subcapitata mg/L EC50 | 420: 96 h Poecilia reticulata mg/L LC50 static | | 24.1: 48 h Daphnia magna mg/L EC50 |

**Persistence/Degradability**
Not determined.

**Bioaccumulation**
Not determined.

**Mobility**

| Chemical Name | Partition Coefficient |
|---|---|
| Tetraethylenepentamine<br>112-57-2 | 1 |

**Other Adverse Effects**
Not determined

## 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Disposal of Wastes** Contact your supplier or a licensed contractor for detailed recommendations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

| | |
|---|---|
| **UN/ID No** | UN2735 |
| **Proper Shipping Name** | Amines, liquid, corrosive, n.o.s. (Tetraethylenepentamine) |
| **Hazard Class** | 8 |
| **Packing Group** | III |

**IATA**

| | |
|---|---|
| **UN/ID No** | UN2735 |
| **Proper Shipping Name** | Amines, liquid, corrosive, n.o.s. (Tetraethylenepentamine) |
| **Hazard Class** | 8 |
| **Packing Group** | III |

**IMDG**

| | |
|---|---|
| **UN/ID No** | UN2735 |
| **Proper Shipping Name** | Amines, liquid, corrosive, n.o.s. (Tetraethylenepentamine) |
| **Hazard Class** | 8 |
| **Packing Group** | III |
| **Marine Pollutant** | This material may meet the definition of a marine pollutant |

## 15. REGULATORY INFORMATION

**International Inventories**

**TSCA** Listed

**Legend:**
***TSCA*** *- United States Toxic Substances Control Act Section 8(b) Inventory*

***DSL/NDSL*** *- Canadian Domestic Substances List/Non-Domestic Substances List*

***EINECS/ELINCS*** *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

***ENCS*** *- Japan Existing and New Chemical Substances*

***IECSC*** *- China Inventory of Existing Chemical Substances*

***KECL*** *- Korean Existing and Evaluated Chemical Substances*

***PICCS*** *- Philippines Inventory of Chemicals and Chemical Substances*

***AICS*** *- Australian Inventory of Chemical Substances*

**US Federal Regulations**

**SARA 313**
Not determined

**US State Regulations**

**U.S. State Right-to-Know Regulations**

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Tetraethylenepentamine<br>112-57-2 | X | X | X |

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health Hazards** | **Flammability** | **Instability** | **Special Hazards** |
| | 3 | 1 | 0 | Not determined |
| **HMIS** | **Health Hazards** | **Flammability** | **Physical Hazards** | **Personal Protection** |
| | 3 | 1 | 0 | B- Safety Glasses, Gloves |

**Issue Date:** 03-Jul-2014
**Revision Date:** 07-Jul-2014
**Revision Note:** New format

**Disclaimer**
**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**