1. IDENTIFICATION OF THE PREPARATION AND COMPANY

i) Product details: Phoenix 170-120 shop Intumescent Basecoat is a thin film intumescent coating for the fire protection of structural steelwork.

ii) Product type & use: Fire proofing coating for use on structural steelwork

iii) Application of the substance / preparation of coating

iv) Manufacturer/ Supplier:
Phoenix Fire Protection (Asia) Ltd.
Tower B, Unit 601, Viking Technology and Business Center
93a Ta Chuen Ping Street, Kwai Chung
Hong Kong (SAR)
Telephone: (852) 2810 6101 Facsimile: (852) 2851 9599

2. COMPOSITION / INFORMATION ON INGREDIENTS:

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
Toluene	203-625-9	108-88-3	10-25%	F:R11 Repr.Cat3;R63 Xn;R48/20,R 65Xi;R38R67
Chlorinated paraffin	264-150-0	63449-39-8	2.5-10%	Xn;R20
Xylene	215-535-7	1330-20-7	2.5-10%	R10 Xn;R20/21 Xi;R38
Butanone	201-159-0	78-93-3	≤ 2.5%	F;R11 Xi;R36 R66 R67
Zinc borate	215-566-6	1332-07-6	≤ 2.5%	N;R50/53
Propane-1, 2-diol	200-338-0	57-55-6	≤ 1%	-

* The Full Text for all R-Phrases is Displayed in Section 16.
* The data shown are in accordance with the latest EC Directives.

3. HAZARDS IDENTIFICATION

Highly flammable. Vapours may cause drowsiness and dizziness. Irritating to skin. Possible risk of harm to the unborn child. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

* Classification (1999/45)
  Xn;R48/20. Repr. Cat. 3;R63. Xi;R38. F;R11. R52/53, R67
* Environment
  The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.
* Physical and Chemical Hazards
  The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures.

3. HAZARDS IDENTIFICATION (CONTINUE)

* Human Health
  In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Harmful by inhalation and in contact with skin. Contains a substance/a group of substances which may cause harm to the unborn child. The product is irritating to eyes and skin.

4. FIRST – AID MEASURES

* General
  General first aid, rest, warmth and fresh air. Never give liquid to an unconscious person. Get medical attention if any discomfort continues.
* Inhalation
  Remove victim immediately from source of exposure. Keep the affected person warm and at rest. Get prompt medical attention. Place unconscious person on the side in the recovery position and ensure breathing can take place. If respiratory problems, artificial respiration/oxygen.
* Eye Contact
  Make sure to remove any contact lenses from the eyes before rinsing. Immediately flush with plenty of water or eyewash solution for up to 10 minutes. Get medical attention if any discomfort continues.
* Skin Contact
  Remove contaminated clothing. Wash off thoroughly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.
* Ingestion
  Do NOT induce vomiting. Get medical attention immediately. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

5. FIRE-FIGHTING MEASURES

* Extinguishing Media
  Do not use water jet as an extinguisher, as this will spread the fire. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to flames with water until well after the fire is out. Avoid breathing fire vapours. When heated and in case of fire, harmful vapours/gases may be formed.
* Protective Measures In Fire:
  Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

* Personal Precautions
  Wear protective clothing as described in Section 8 of this sheet. Warn everybody of potential hazards and evacuate if necessary. Solvent vapours may form explosive mixture with air. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.
* Environmental Precautions
  Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be immediately alerted to the Environmental agency or other appropriate regulatory body.
* Spill Clean Up Method
  Keep combustibles away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage. Store in a cool and well-ventilated place. Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

7. HANDLING AND STORAGE

* Usage Precautions
  Risk of vapour concentration on the floor and in low-lying areas. Solvent vapours may form explosive mixtures with air. Prevent creation of flammable or explosive concentrations of vapour in air and avoid concentrations higher than the workplace exposure limits. Eliminate all sources of ignition. Use non sparking hand tools and explosion-proof electric equipment. Keep containers tightly closed. Keep away from heat, sparks and open flame. Required air quantity to ventilate to 10% of the LEL. 93 m^3/liter. The above figure is given as a guide only. Ventilation and extraction must be arranged so that all parts of the workplace are properly ventilated i.e. there are no recesses or pockets where high vapour concentrations are allowed to build up. If there is any doubt about the adequacy of the ventilation/extraction of solvent vapour, regular monitoring of confined workplaces should be carried out. Do not use in confined spaces without adequate ventilation and/or respirator. Avoid contact with skin and eyes. Avoid inhalation of vapours and spray mists. Do not eat, drink or smoke when using the product. Wear protective clothing as described in Section 8 of this safety data sheet. Never use pressure to empty; the container is not a pressure vessel. Keep in original container. Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards. Contaminated rags and cloths must be put in fireproof containers for disposal. The following guide weight indicators are given to enable users to carry out manual handling assessments. 20 liter pail = 30.0 kg. 200 liter barrel = 300 kg. This figure may vary with shade.
* Storage Precautions
  Observe the label precautions. Store in closed original container at temperatures between 5℃ and 25℃. Store in a cool and well-ventilated place. Keep away from sources of ignition - No smoking. Containers which are open should be properly re-sealed and kept upright to prevent leakage. Flammable/combustible - Keep away from oxidisers, heat and flames. Avoid contact with oxidizing agents. Keep away from heat, sparks and open flame. Store in accordance with local regulations.

7. HANDLING AND STORAGE (CONTINUE)

* Storage Class
  Flammable liquid storage. Store in accordance with local regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	STD	TWA – 8 Hrs		STEL – 15 Min		Note
Butanone	WEL	200 ppm (Sk)	600 ppm (Sk)	300 ppm (Sk)	889 mg/m3 (Sk)	
Propane-1, 2-diol		150 ppm	474 mg/m3			
Toluene	WEL	50 ppm	191 mg/m3	100 ppm	384 mg/m3	Sk
Xylene	WEL	50 ppm (Sk)	220 mg/m3 (Sk)	100 ppm (Sk)	441 mg/m3 (Sk)	
Zinc borate	SUP		5mg/m3		10 mg/m3	

WEL = Workplace Exposure Limit.
Sk = Can be absorbed through skin.

* Ingredient Comments
  SUP = Supplier's recommendation
* Protective Equipment

* Process Condition
  Provide eyewash station.
* Engineering Measures
  Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. All handling to take place in well-ventilated area.
* Respiratory Equipment
  Supplied-air respirator with full face piece, helmet or hood. When spraying use suitable air-supplied respirator.
* Hand Protection
  The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin.
* Eye Protection
  Wear splash-proof eye goggles to prevent any possibility of eye contact.
* Other Protection
  Wear appropriate clothing to prevent any possibility of skin contact. Take precautionary measures against static discharges.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

* Skin Protection
  DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using, do not eat, drink or smoke.
* Skin Protection
  Wear appropriate clothing to prevent any possibility of skin contact. Wear suitable protective clothing as protection against splashing or contamination.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Viscous liquid.
COLOUR:	White
ODOUR	Characteristic
SOLUBILITY:	Immiscible with water
BOILING POINT (°C):	79°C
RELATIVE DENSITY:	1.3 g/cm^3
VISCOSITY:	37.8 poise Rotothinner at 20°C
FLASH POINT (°C):	2°C
FLAMMABILITY LIMIT - LOWER(%)	1.0%

10. STABILITY AND REACTIVITY

* Stability
  No particular stability concerns. Follow precautions for safe handling described in this safety data sheet. Stable under the prescribed storage conditions.
* Condition To Avoid
  Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.
* Material To Avoid
  Strong acids. Strong alkalis. Strong oxidising substances.
* Hazardous Decomposition Products
  Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11. TOXICOLOGICAL INFORMATION

* Toxicological Information
  No information available.
* General Information
  Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

11. TOXICOLOGICAL INFORMATION (CONTINUE)

* Inhalation
  In high concentrations, vapours may irritate throat and respiratory system and cause coughing. Harmful by inhalation. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication.
* Ingestion
  Gastrointestinal symptoms, including upset stomach. May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.
* Skin Contact
  Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Irritating to skin. Harmful in contact with skin.
* Eye Contact
  Irritating and may cause redness and pain.
* Health Warnings
  Pregnant women should not work with the product, if there is the least risk of exposure.

12. ECOLOGICAL INFORMATION

* Ecotoxicity
  There are no data on the ecotoxicity of this product. The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.
* Bioaccumulation
  No data available on bioaccumulation. The product contains potentially bioaccumulating substances.
* Water Hazard Classification
  WGK 2.

13. DISPOSAL CONSIDERATION

* General Information
  Waste, residue, empty containers, discarded work clothes and used disposable towels must be collected in designated receptacles, labeled with content. Rags and the like, moistened with flammable liquids, must be discarded into designated fireproof bucket. Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.
* Disposal Methods
  Contact specialist disposal companies. Dispose of waste and residues in accordance with local authority requirements. Make sure containers are empty before discarding (explosion risk). Absorb in vermiculite or dry sand and dispose of at a licensed hazardous waste collection point.

14. TRANSPORT INFORMATION

UK ROAD CLASS:	3
PROPER SHIPPING NAME:	PAINT
UN NO. ROAD:	1263
UK ROAD PACK GR.:	III
ADR CLASS NO.:	3
ADR CLASS:	Class 3: Flammable Liquids
ADR PACK GROUP:	III
TUNNEL RESTRICTION CODE:	(D/E)
HAZARD No. (ADR):	30
ADR LABEL NO.:	3
HAZCHEM CODE:	•3YE
RID CLASS NO.:	3
RID PACK GROUP:	III
UN NO. SEA:	1263
IMDG CLASS:	3
IMDG PACK GR.:	III
EMS:	F-E, S-E
UN NO. AIR:	1263
AIR CLASS:	3
AIR PACK GR.:	III

15. REGULATORY INFORMATION

* Labeling: Harmful, Highly Flammable
* Contain: Toluene
* Risk Phases:
  - R11 - Highly flammable
  - R38 - Irritating to skin.
  - R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
  - R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R63 - Possible risk of harm to the unborn child.
  - R67 - Vapours may cause drowsiness and dizziness
* Safety Phases:
  - S16 - Keep away from sources of ignition - No smoking
  - S23 - Do not breathe vapour/spray.
  - S36/37 - Wear suitable protective clothing and gloves
  - S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
  - S60 -This material and its container must be disposed of as hazardous waste.
  - S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  - S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
* National Regulations:
  The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits 2005 (EH40)

16. OTHER INFORMATION

General Information
Restricted to professional users. Only trained personnel should use this material.

Revision Date
04th October 2012

Risk Phases In Full

R10	Flammable.
R20/21	Harmful by inhalation and in contact with skin.
R20	Harmful by inhalation.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable.
R36	Irritating to eyes.
R38	Irritating to skin.
R63	Possible risk of harm to the unborn child.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.