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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY

- Product details: Phoenix 370-60 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

Product/ Ingredient Name	Identifiers	%	Classification		Туре
ingredient rtaine			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Chloropropanol Phosphate Propylene Glyco	EC: 237-158-7 CAS: 13674-84-5 REACH #:	>=1 - <3	Xn; R22	Acute Tox. 4, H302	[1]
	01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	>=1 - <5	Not classified.	Not classified.	[2]
			See Section 16 for the full text of the R- phrases declared above.	See Section 16 for the full text of the H statements declared above.	

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, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting to this section.

Type

- [1] Substance classified with a health and environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

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

3. HAZARDS IDENTIFICATION

3.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulaton (EC) No. 1272/2008 [CLP/GHS]

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.



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3. HAZARDS IDENTIFICATION

Classification according to Directive 1999/45/EC [DPD]

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: Not classified.

See Section 16 for the full text of the R phrases or H statement declared above. See Section 11 for more detailed information on health effects and symptoms.

3.2 Label elements

Signal word: No signal word.

Hazard statements: No known significant effects or critical hazards.

Precautionary statements

Prevention: Not applicable. Response: Not applicable. Storage: Not applicable. Disposal: Not applicable.

Supplemental label elements: Safety data sheet available on request. For Industrial Use Only. Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous

substances, mixtures and articles: Not applicable.

Special packaging requirements

Not applicable.

Biocidal products regulation

3.3 Other hazards

Other hazards which do not result in classification: None known.

4. FIRST - AID MEASURES

4.1 Description of first aid measures

General: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.



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4. FIRST - AID MEASURES

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

There is no data available on the mixture itself.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. Repeated or prolonged contact with the mixture may cause removal of natural fat from skin, resulting in non-allergic contact dermatitis and absorption through skin.

If splashed in the eyes, the liquid may cause irritation and irreversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

4.3 Indication of any immediate medical attention and special treatment needed

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.

See toxicological information in Section 11.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Recommended – alcohol-resistant foam, carbon dioxide, powders.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous thermal decomposition products: Decomposition products may include the following materials – carbon monoxide, smoke, oxides of nitrogen.



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5. FIRE-FIGHTING MEASURES

5.3 Advice for firefighters

Special protective actions for firefighters: Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for firefighters: Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Avoid breathing vapour or mist. Refer to protective measures listed in Section 7 and 8. Keep unnecessary and unprotected personnel from entering.

For emergency responders: If specialized clothing is required to deal with spillage, take note if any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Do not allow to enter drains and watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

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). Preferably clean with a detergent. Avoid using solvents.

6.4 References to other sections: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour, spray and mist. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with health and safety work laws. Do not allow to enter drains or watercourses.



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7. HANDLING AND STORAGE

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances, they should wear a compressed air-fed respirator during the spraying process and ntil such time as the particulates and solvent vapour concentration has fallen below exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes in joint storage - Keep away from oxidizing agents, strong alkalis, strong acids.

Additional notes on storage conditions – Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep container tightly closed. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Contaminated absorbent material may pose the same hazard as the spilt product. Store in closed original container at temperatures between 5°C and 25°C.

7.3 Specific end use(s)

Recommendations: Not available.

Industrial sector specific solutions: Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimize the risks of spontaneous combustion and other fire hazards.

Before use of material, please refer to Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Propylene	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m³ 8 hours. Form: Particulate TWA: 474 mg/m³ 8 hours. Form: Sum of vapour and particulate TWA: 150 ppm 8 hours. Form: Sum of vapour and particulate



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/ or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy), European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents), European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical agents). Reference to national guidance will also be required.

Regular monitoring of all work areas should be carried out at all times, including areas that nay not be equally ventilated.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below OEL, suitable respiratory protection must be worn.

Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Individual protection measures

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety eyewear designed to protect against splash of liquids.



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin protection

Hand protection: Wear suitable gloves tested to EN374.

Gloves:

Short Term Exposure less than 10 minutes continuous use Nitrile gloves. Long Tern Exposure Spill/ For prolonged or repeated handling, use PE/ PE Laminate gloves > 8 hours (breakthrough time).

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance and effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier cream may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection:

Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres. 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.

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:

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and safe working limits of the selected respirator.

Environmental exposure controls: Do not allow to enter drains or watercourses.

Before use of material, please refer to Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.



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9. PHYSICAL AND CHEMICAL PROPERTIES:

9.1 Information based on physical and chemical properties

Appearance:

Physical state - Liquid.

Colour – White.

Odour - Paint.

Odour threshold – Not available (not tested).

pH - 8.5.

Melting point/freezing point – Not available (not tested).

Initial boiling point and boiling range - 100°C.

Flash point - Closed cup: >93.3°C.

Evaporation rate -0.09 (butyl acetate = 1).

Flammability (solid, gas) - Not available (not tested).

Burning time – Not available (not tested).

Burning rate – Not available (not tested).

Upper/lower flammability or explosive limits - Lower 2.6%; Upper 12.5%.

Vapour pressure – 0.31 kPa [at 20°C].

Vapour density -1 [Air = 1].

Relative density - 1.35.

Solubility(ies) - Not available (not tested).

Solubility in water – Not available (not tested).

Partition coefficient: n-octanol/water - Not available (not tested).

Decomposition temperature – Not available (not tested).

Viscosity – Kinematic (room temperature) > 0.205 cm²/s; Kinematic (40°C) > 0.205 cm²/s.

Explosive and oxidizing properties:

Under normal conditions of storage and use, hazardous reactions will not occur.

9.2 Other information

Heat of combustion: 0.000005338 kJ/g.

10. STABILITY AND REACTIVITY

10.1 Reactivity:

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability:

Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur.



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10. STABILITY AND REACTIVITY

10.4 Conditions to avoid:

When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials:

Keep away from the following materials to prevent strong exothermic reactions – oxidizing agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products:

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

Refer to Section 7 – HANDLING AND STORAGE and Section 8 – EXPSOURE CONTROL/PERSONAL PROTECTION for additional handling information and protection of employees.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

There is no data available on the mixture itself.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. Repeated or prolonged contact with the mixture may cause removal of natural fat from skin, resulting in non-allergic contact dermatitis and absorption through skin.

If splashed in the eyes, the liquid may cause irritation and irreversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

Product/ingredient	Result	Species	Dose	Exposure
name				
Chloropropanol	LD50 Oral	Rat	1500 mg/kg	-
Phosphate				

Acute toxicity estimates

Route	ATE Value
Oral	51932.1 mg/kg



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11. TOXICOLOGICAL INFORMATION

Irritation/Corrosion: No data available.

Conclusion/ Summary: Not available.

Sensitization: No data available.

Conclusion/ Summary: Not available.

Mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Teratogenicity: No data available.

Specific target organ toxicity (single exposure): No data available.

Specific target organ toxicity (repeated exposure): No data available.

Aspiration hazard: No data available.

Other information: Not available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

There is no data available on the mixture itself.

Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS].

12.2 Persistence and degradability

No data available.

Conclusion/Summary: No data available.

12.3 Bioaccumulative potential

Product/ingredient	$LogP_ow$	BCF	Potential
name			
Chloropropanol	-	0.8 to 2.8	Low
Phosphate			



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12. ECOLOGICAL INFORMATION

12.4 Mobility in soil

Soil/water partition coefficient (Koc): Not available.

Mobility: Not available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

12.6 Other adverse effects

No known significant effects or critical hazards.

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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 authority with jurisdiction.

Hazardous waste: No.

European waste catalogue (EWC):

08 01 12 - waste paint and varnish other than those mentioned in 08 01 11

Disposal considerations:

Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.



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13. DISPOSAL CONSIDERATIONS

Packaging

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations:

Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

European waste catalogue (EWC):

Plastic articles 15 01 02; Metallic packaging 15 01 04; Mixed packaging 15 01 06.

Special precautions:

This material and its container must be dispose of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and swers.

14. TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport Hazard Class(es)/Label(s)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.
Additional information	Special provisions Not applicable	Emergency schedule (EmS) Not applicable	Special provisions Not applicable

This mixture is not classified as dangerous according to international transport regulations (ADR/RID, IMDG, ICAO/IATA).



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14. TRANSPORT INFORMATION

14.6 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.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not available.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.) does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility if the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

15. REGULATORY INFORMATION

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV: None of the components are listed.

Substances of very high concern: None of the components are listed.

Annex XVII – Restriction on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations

European Directive 2004/42/EC: Exclusively for uses non-regulated by Directive 2004/42/EC.

Seveso II Directive

This product is not controlled under the Seveso II Directive.

National regulations

Industrial use: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.



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15. REGULATORY INFORMATION

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

16. OTHER INFORMATION

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EUH Statement = CLP - Specific Hazard Statement

PBT = Persistence, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

vPvB = Very Persistence and Very Bioaccumulative

Key literature references:

Regulation (EC) No. 1272/2008 [CLP]

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

DPD = Dangerous Preparations Directive [1999/45/EC]

DSD = Dangerous Substance Directive [67/548/EEC]

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 453/2010

Directive 96/82/EC, and relative amendments and additions

Directive 2008/98/EC, and relative amendments and additions

Directive 2000/39/EC, and relative amendments and additions

CEPE Guidelines

<u>Procedure used to derive the classification according to Regulation (EC) No. 1272/2008</u> [CLP/GHS]

Classification	Justification
Not Classified.	

Full text of abbreviated H statements: H302 – Harmful if swallowed.

Full text of classifications [CLP/GHS]: Acute Tox. 4, H302 – Acute Toxicity (oral) – Category 4.

Full text of abbreviated R phrases: R22 – Harmful if swallowed.

Full text of classifications [DSD/DPD]: Xn – Harmful.

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16. OTHER INFORMATION

Date of printing: 5th May, 2015

Date of issue/revision: 5th May, 2015

Date of previous issue: No previous validation.

Version: 1

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary and appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.