



Safety Data Sheet CRYSTIC 2-446PA

Updated April 2021

1. Identification of the Material and Supplier

Product Name: Crystic 2-446PA
 Product Code: 2-446 1D
 UN Number: 1866
 DG Class: 3
 Shipping Name: Resin Solution, Flammable
 Packaging Group: III
 Hazchem Code: 3Y
 Intended Use: To manufacture GRP products
 Company: H S Composites Ltd
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2. Hazard Identification

Regulatory Information:

Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2020, October 2020

HSNO Approval Number: HSNO002495

Dangerous Goods Class: 3

HAZARDOUS CLASSIFICATIONS

Flammable Liquid	Category 3
Acutely Toxic (Oral)	Category 4
Acutely Toxic (Inhalation)	Category 4
Skin Corrosion/Irritant	Category 2
Serious Eye Damage/Irritation	Category 2
Specific Target Organ Toxicity (Narcotic Effect)	Category 3
Specific Target Organ Toxicity Repeat Exposure	Category 2
Aquatic Toxicity	Category 2

Signal Word: **Warning**

Pictograms:



Flammable



Irritant



Harmful

HEALTH HAZARDS

H226	Flammable Liquid and Vapour
H302	Harmful if Swallowed
H313	May be harmful on contact with skin
H315	Causes Skin Irritation
H320	Causes eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure

ENVIRONMENT HAZARDS

H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects
H432	Toxic to terrestrial vertebrates

PRECAUTIONARY STATEMENTS**PREVENTION**

P210	Keep away from ignition sources such as heat/sparks/open flame/hot surface. No smoking.
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion proof equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe vapours
P264	Wash hands and exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or well-ventilated areas
P273	Avoid release into the environment
P280	Wear protective clothing, gloves and eye protection
P281	Use personal protective equipment as required

RESPONSE

P101	If medical advice is needed, have product container or label at hand
P301 + P312	If swallowed call POISON CENTRE or DOCTOR if you feel unwell
P330 + P331	Rinse out mouth, DO NOT induce vomiting
P302 + P352	If on skin, wash with plenty of soap and water
P332 + P313	If skin irritation occurs, get medical advice
P362	Take off contaminated clothing and wash before reuse
P304 + P340	If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing.
P312	Call POISON CENTRE or DOCTOR if you feel unwell
P305 + P351	If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so, continue to rinse
P337 + P313	If eye irritation persists seek medical advice
P308 + P313	If exposed or concerned seek medical advice
P314	Get medical advice if you feel unwell
P370 + P378	In case of fire use water fog, foam, dry chemical or carbon dioxide (CO ₂) to extinguish
P391	Collect any spillage
P301+P330	IF SWALLOWED: Rinse out mouth, do not swallow water, DO NOT induce vomiting.
P370+P378	In case of fire: Use appropriate media for extinction.

STORAGE

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P235	Keep cool.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P405	Store in a locked area

DISPOSAL

P501	Dispose of product and packaging in accordance with local and Governmental regulations
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Dangerous Goods Classification 3

Packing Group III

Hazchem Code 3Y

3. Composition / Information on Ingredients

Component	Cas No	Proportion
Styrene	100-42-5	25 - 50%
Phthalic Anhydride	85-44-8	<0.3%

4. First Aid Measures

**For advice, contact the National Poisons Centre
(Phone New Zealand: 0800 764 766) or a doctor.**

If seeking medical attention show this Safety Data Sheet to the Doctor in attendance.

Inhalation: Move the person to fresh air immediately. Begin artificial respiration if breathing has stopped and get immediate medical assistance. Do not use mouth to mouth method if the victim has ingested or inhaled the substance, give artificial respiration with the aid of a pocket mask. If breathing is difficult only trained personnel should administer oxygen. Get immediate medical attention. Keep warm and at rest until recovered. Get medical advice if person feels unwell or is concerned.

Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with soap and water. It may cause an allergic skin reaction, if skin irritation develops or persists, get medical advice. Launder contaminated clothing before re-use.

Eye Contact: Rinse immediately with plenty of water also under the eyelids keeping them apart and flush the eye continuously with running water for at least 15 minutes. Remove contact lenses after 5 minutes if present, and easy to do. Continue flushing. Get immediate medical advice/attention if irritation persists.

Ingestion: If swallowed, DO NOT induce vomiting. Rinse mouth. Get immediate medical attention. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth.

Protection for First-Aider: Ensure that those giving assistance and medical personnel are aware of the materials involved, take precautions to protect yourself or any other personnel from contamination. Use PPE.

First Aid facilities: Provide eye baths and safety showers close to areas where splashing may occur.

Note to Doctor/Physician: Treat symptomatically. If a corrosive material, then the use of gastric lavage or emesis may be required.

5. Fire Fighting Measures

Flammable liquids and vapours: Shut off product that may 'fuel' a fire if safe to do so. Remove all persons from the immediate area, allow only trained personnel to attend a fire in progress, provide fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media: Water fog, foam, dry chemical or carbon dioxide (CO₂).

DO NOT use straight jet streams of water.

Hazards from combustion: Keep product and empty containers away from heat and sources of ignition. Run off from the fire area may create fire or an explosion hazard. In the event of a fire Keep surrounding containers cool by spraying with water. When burning the product may give off Smoke, fumes, metal oxides, carbon dioxide and carbon monoxide and incomplete combustion products.

Precautions for fire fighters and special protective equipment: Full protective clothing and self-contained breathing apparatus with a full-face piece. Move other containers from the area if safe to do so without risk to yourself or others.

Hazchem Code: 3Y

Styrene will polymerise at elevated temperatures. If this occurs in a closed container there is a serious risk of violent rupture.

SPECIAL FIREFIGHTING PROCEDURES.

Fight like a fuel-oil fire. Water used in fire-fighting should not be allowed to enter drainage systems or contaminate soil.

6. Accidental Release Measures

Steps to be taken if the material is released or spilled.

Wear the correct Personal Protection Equipment. See section 8 for requirements.

Stop leakage if safe to do so.

Eliminate all sources of ignition (flames, hot surfaces, electrical, static or frictional sparks). Evacuate immediate area. Ventilate the surrounding area. Do not walk in spillage.

Contain the area of spillage, do not touch damaged containers unless wearing the correct PPE. If safe to do so material can be collected and placed in a container for disposal. Absorb remainder on the floor with sand, vermiculite or other non-combustible material. Place collected material in a closed container that is suitable for that product and label for disposal.

Prevent contamination of storm-water drains and waterways.

Waste disposal method. Through local waste disposal agent, can be destroyed by liquid incineration with off-gas scrubber.

Contaminated absorbent to be disposed of in accordance with appropriate local or governmental regulations.

Correctly label all material containers to be disposed of and supply copy of SDS for that product.

Liquid material mixed with the appropriate hardener should be allowed to gel and cool before disposal as solid waste in accordance with appropriate local or national regulations or through a registered waste disposal plant.

7. Handling and Storage

Wear correct PPE equipment when using material. Avoid inhalation of vapour and contact with skin, eyes and clothing. Use only with adequate ventilation.

Keep away from children.

Wash skin with soapy water, launder contaminated clothing before re-use.

Wash hands thoroughly after handling the product, before breaks and before eating.

This product is flammable. Isolate from all potential sources of ignition do not open near open flame, sources of heat or ignition, NO SMOKING.

Store in a locked and bunded area or approved flammable goods store away from direct heat (ideally below 25°C to prevent spoilage) and well ventilated. Keep containers tightly closed when not in use. Open drums slowly in case of internal pressure.

Store separate from oxidising materials, peroxides and metal salts.

8. Exposure Controls / Personal Protective Equipment (PPE)

Workplace Exposure Limit: Worksafe 2020

Component	Cas No	TWA
Styrene	100-42-5	20ppm

Phthalic Anhydride	85-44-8	0.01mg/m ³
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Use general dilution or local exhaust ventilation to maintain vapour concentration below WES level in the work place. If concentrations exceed exposure limit use organic vapour canister mask or approved air-line mask.

Skin Protection: Wear overalls or other work clothing providing arm and leg cover. Use protective gloves (PVC or Nitrile).

Eye Protection: Safety goggles or splash mask.



9. Physical / Chemical Properties

Physical Description & colour:	Viscous liquid, varies in colour
Odour:	Aromatic Solvent (styrene)
Boiling Point:	50 - 150°C
Flammable Liquid Flash Point:	32°C
Evaporation Rate:	Not available
Flammable Limits:	
LEL (lower explosive limit)	6.1
UEL (upper explosive limit)	6.6
Specific Gravity:	1.1 – 1.2
Percentage of Volatiles:	Not available
Water Solubility:	Insoluble in water
Marine Pollutant:	Yes

10. Stability and Reactivity

<u>Stability:</u>	Under normal working conditions, good ventilation and providing the correct personal protection is worn then there should be no adverse effects.
<u>Conditions to avoid:</u>	Exposure to sunlight, open flames, contamination and prolonged storage above 25°C.
<u>Materials to avoid:</u>	Strong acids, peroxides, other oxidising agents, transition metals e.g., copper and zinc, their alloys and galvanised items.
<u>Hazardous Polymerisation:</u>	May occur as result of high temperature or contamination, if burned, these products will evolve black, acrid smoke along with carbon monoxide, carbon dioxide and various organic compounds.

11. Toxicological Information

When used under properly controlled conditions with adequate ventilation, within workplace exposure limits and with adequate protective equipment, no adverse health effects are to be expected.

Inhalation of Vapour: If in high concentrations vapour can irritate the throat and respiratory system causing coughing. Harmful by inhalation.

Eye Contact: Small drops will cause pain, stinging, irritation and redness, large quantities can cause severe eye damage.

Skin Contact: Acts as a defatting agent when left on skin, may cause the skin to crack and repeated exposure may cause dermatitis.

If Swallowed: Rinse out mouth immediately, do not swallow rinsing water, may cause upset stomach.

Chronic effects of overexposure:

Mild dermatitis may result from prolonged or repeated skin contact. Styrene can be absorbed through the skin. Seek medical advice

Excessive exposure to the liquid material or vapour may affect the central nervous system, the liver, kidneys and respiratory system.

12. Ecological Information

Prevent these products from entering storm-water drains sewers or waterways.

Styrene is the major contaminant hazard in these formulations and it will undergo slow (but near complete) biodegradation in contact with soil. Styrene vapour degrades rapidly in the atmosphere.

Styrene floats on water and will vaporise and biodegrade.

Toxic to aquatic organisms.

H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects
H432	Toxic to terrestrial vertebrates

13. Disposal Considerations

Waste Disposal: Small quantities of these products may be mixed with appropriate amounts of polymerization initiators (catalyst) and allowed to cool and solidify before disposal as solid waste. Recover or recycle if possible.

This material and its container must be disposed of as hazardous waste.

Any disposal must be labelled (See section 14) as such and comply with applicable local, regional and national regulations. Ensure that these materials do not enter drains, sewers or waterways. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

P501	Dispose of product and packaging in accordance with local regulations
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14. Transport Information

UN Number: 1866

Proper Shipping Name: Resin Solution, Flammable

Hazchem Class: 3
 Hazchem Code: 3Y
 Packing Group: III
 IMDG Code: 3
 Tunnel Restriction: D
 ERG Code 127
 EMS Code F-E, S-E
 Environmental Hazard: Yes – Marine Pollutant

15. Regulatory Information

EPA New Zealand HSNO approval code HSR002495
 Additives, Process Chemicals and Raw Materials (Flammable) Group Standard 2020, October 2020
 NZ Inventory of Chemicals – Complies
 Ozone Depleting Substance – Not Applicable

SDS To be available within 10 minutes when required.

A current Location Compliance Certificate is required for this product when storing quantities over the following quantity.

Hazard Classification number	Product	Quantity more than
HSNO002495	Flammable Liquid, Category 3 (5 ltr containers)	100ltr

Websites that will be of assistance regarding Hazardous Substances:

<https://www.hazardoussubstances.govt.nz/calculator>

<http://www.hazardoussubstances.govt.nz/>

<https://www.worksafe.govt.nz/topic-and-industry/hazardous-substances/guidance/hazardous-substances-that-activate-key-safety-controls/>

16. Other Information

This SDS contains only safety-related information. For other data see product information literature.

Fire/Ambulance/Police NZ 111
 Cas # Unique number identifier of chemical substance information
 STEL Short term exposure limit, maximum airborne concentration to which a worker may be exposed to in any 15-minute period, provided the TWA is not exceeded
 TWA Time Weighted Average, maximum exposure allowed in an 8-hour period
 UN Number United Nation Number assigned to Dangerous Goods
 EPA Environmental Protection Agency

IMDG	International Maritime Dangerous Goods Class Code
LEL	Lower explosive limit
UEL	Upper explosive limit
ppm	parts per million
mg/m ³	milligrams per cubic mtr
EMS	Emergency response for shipping
ERG	Emergency code for first responders
Other References	Manufacturers/Supplier SDS's

Review: April 2021

Reason: Updates, pictograms & GHS Coding

Disclaimer: The information given in this safety data sheet is given in good faith and is believed to be valid and accurate at the time of publication. However, no responsibility is accepted for accident or injury which may occur from omissions or from information contained in the data sheet.

HS Composites