1. IDENTIFICATION OF THE MIXTURE AND OF THE SUPPLIER

Product Identifier	
Product	Yellow hardener [21-67]
Recommended use of chemical	Use as Hardener in Yellow Putty
Restriction on use	No open flames, No spraks, and No smoking
Supplier's details	
Company	Big-Ben (Paints) Company Limited
Address	38 Mu 7 Suanluangruamjai Road Suanluang Krathumban Samutsakorn 74110 Thailand
Telephone number	+66 2 811 1442 or +66 2 811 1443
Fax number	+66 2 811 0632
E-mail	bbp@bbp.co.th
Emergency phone number	+66 2 811 1442 or + 66 2 811 1443

2. HAZARD IDENTIFICATION

Classification of the substance or mixture

This product has been classified in accordance with the hazard communication standard 29 CSR 1910.1200; the SDS and labels contain all the information as required by the standard.

Flammable liquids	Category 1
Acute toxicity - oral	Category 1
Acute toxicity - inhalation	Category 4
Skin corrosion/irritation	Category 1
Eye damage/irritation	Category 1
Sentization - respiratory	Category 1
Sentization - skin	Category 1
Hazardous to the aquatic environment - acute hazard	Category 2
Hazardous to the aquatic environment - long-term hazard	Category 1

Remark:

Percentage of mixture consisting of ingredient(s) of unknown oral toxicity: 50.00%

Percentage of mixture consisting of ingredient(s) of unknown dermal toxicity: 100.00%

Percentage of mixture consisting of ingredient(s) of unknown inhalation toxicity: 50.00%

GHS label elements

Pictogram or symbol

Signal word **Danger**

Hazard statement:

H224 Extremely flammable liquid and vapour

H300 Fatal if swallowed

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H332 Harmful if inhaled

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H401 Toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement

[PREVENTION]

P210 Keep away from heat / sparks / open flames / hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating / lighting / equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash thoroughly after handling.
P270 Do no eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P285 In case of inadequate ventilation wear respiratory protection.

[RESPONSE]

P301+P310 IF SWALLOWED Immediately call a POISON CENTER or doctor / physician.
P302+P352 IF ON SKIN Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair) Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+P341 IF INHALED If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P312 Call a POISON CENTER or doctor / physician if you feel unwell.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P333+P313 IF skin irritation or rash occurs Get medical advice / attention.
P342+P311 IF experiencing respiratory symptoms Call a POISON CENTER or doctor / physician.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P391 Collect spillage.

[STORAGE]

P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

[DISPOSAL]

P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Content % (w/w)
Cyclohexanone, peroxide	12262-58-7	22.65 - 58.02
Pigment	-	5.05 - 15.74
Plasticizer	-	24.03 - 46.64
Polymer	-	3.28 - 7.92

4. FIRST AND MEASURES

Inhalation	Remove to fresh air. If unconscious, place in recovery position and seek medical attention immediately.
Skin contact	Immediately flush with water for at least 15 minutes. Remove contaiminated clothing. Seek medical attention immediately. Wash thoroughly after handling.
Eye contact	Hold eyelids apart and immediately flush with plenty of water for 15 minutes. Seek medical advice. Remove contact lenses.
Ingestion	Rinse mouth with water. Never give anything by mouth to an unconscious person. Obtain medical attention. If swallowed, DO NOT induce vomitting unless directed to do so by medical personnel.
Most important symptoms/effects, acute and delayed	Dizziness. Drowsiness. Headache. Nausea. Vomitting. Weakness. Unconsciousness. Skin and eye redness. Pain. Nausea. Vomitting.

5. FIRE FIGHTING MEASURES	
Suitable extinguishing media	Dry chemical. Carbon Dioxide (CO_2). Alcohol-resistant foam. Water spray.
Unsuitable extinguishing media	High volume water jet.
Specific hazards arising from the chemical	Flammable liquid. Vapors can form an ignitable misture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Container may rupture on heating.
Specific protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and full protective clothing for firefighting.

6. ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective equipment, and emergency procedures	Keep unnecessary personnel away. Prevent further leakage or spillage if safe to do so. Use personal protective equipment. Use only non-sparkling tools.
Environmental precautions	Prevent the material from entering drains or water courses.
Methods and materials for containment and cleaning up	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations.

7. HANDLING AND STORAGE	
Precautions for safe handling	Avoid breathing vapor and contact with eyes, skin, and clothing. Do no leave containers open. Avoid repeated or prolonged contact with skin.
Conditions for safe storage, including any incompatibilites	Keep away from heat or flames. Keep in cool, dry, ventilated storage and in closed containers. Store away from oxidizing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Control parameters	Cyclohexanone, peroxide Pigment Plasticizer Polymer
Appropriate engineering controls	Provide adequate ventilation. Install local exhaust.
Personal protective equipment	
Respiratory protection	Organic vapor respirator
Hand protection	Rubber gloves. Neoprene.
Eye protection	Safety goggle.
Skin and body protection	Wear suitable clothing

9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Pasty Yellow
Odor	Organic solvent
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	lower than 23 C
Evaporation rate	Not Available
Flammability (solid, gas)	Not available
Upper/lower flammability or explosive limits	Not available Not available
Vapor pressure	Not Available
Vapor density	Not Available
Relative density	0.95 - 1.05 g/cm3
Solubility(ies)	Soluble in Organic solvent
Partition coefficient n-Octanol-water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	´Not Available

10. STABILITY AND REACTIVITY	
Reactivity	Reacts violently with strong acids and strong oxidants
Chemical stability	Stable under normal storage and handling conditions
Possibility of hazardous reaction	Will not occur
Condition to avoid	High temperatures, sparks, open flame, and all other sources of ignition
Incompatible materials	Strong oxidizing agents, strong acids
Hazardous decomposition products	Not available

11. TOXICOLOGICAL INFORMATION	
Acute toxicity (oral)	ATEmix = 1.08 mg/kg (Category 1) Cyclohexanone, peroxide LD50 (rat) oral = 1.08 mg/kg[26]
Acute toxicity (dermal)	Not available
Acute toxicity (dermal)	ATEmix = 5.00 mg/kg (Classify 4) Cyclohexanone, peroxide LC50 (rat) inhalation = 5.00 mg/kg[26]
Skin corrosion and skin irritation	(Cyclohexanone, peroxide)
Serious eye damage or eye irritation	Causes serious eye damage (Cyclohexanone, peroxide)
Respirator and skin sensitzation	May cause allergy or asthma symptoms or breathing difficulties if inhaled (Cyclohexanone, peroxide)
Skin sentization	May cause an allergic skin reaction (Cyclohexanone, peroxide)
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity following single exposure	Not classified
Specific target organ toxicity following repeated exposure	Not classified
Aspiration hazard	Not classified

12. ECOLOGICAL INFORMATION	
Acute aquatic hazard	Toxic to aquatic life Cyclohexanone, peroxide LC50 (fish) 96 hr = 47.70 mg/L[26] ErC-EC72 (Fungi) 96 hr = 1.7 mg/L[26]
Long term aquatic hazard	Very toxic to aquatic life with long lasting effects Cyclohexanone, peroxide NOEC fungi = 0.495 mg/L[26]
Persistance and degradability	Rapidly degradable (Cyclohexanone, peroxide)
Bioaccumulative potential	Bioaccumulative potential Cyclohexanone, peroxide log KOW = 1.20[26]
Mobility in soil	The product is insoluable in water. If released to water, some of the components will have tendency to evaporate while other components are expected to be highly mobile in soil and have the potential to reach underground water supplies.
Other adverse effects	Not available

13. DISPOSAL CONSIDERATIONS	
Disposal methods	Disposing of this material/container should be done under all the regulations or handled by authorized waste collector in your country
Container disposal	Do not re-use empty containers

14. TRANSPORT INFORMATION	
Labels required	
UN number	1263
UN proper shipping name	Paint
Transport hazard class(es)	3
Packing group	III
Environmental hazards	Not applicable
Special precautions	Not applicable
Transport in bulk	Not applicable

15. REGULATORY INFORMATION	
Inventory of existing chemical substance produced or imported in USA (TSCA)	All component in this product are listed
Toxic substance control act (TSCA)	All component in this product are listed

16. OTHER INFORMATION
Issue date: 25 August 2022
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