

1. IDENTIFICATION OF THE MIXTURE AND OF THE SUPPLIER

Product Identifier

Product	Thinner 2K (Slow Dry) [86-120]
Recommended use of chemical	Use as Thinner
Restriction on use	No open flames, No sparks, and No smoking

Supplier's details

Company	Big-Ben Chemical Company Limited
Address	168 Mu 2 Donkhaidee 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 2
Acute toxicity - oral	Category 5
Skin corrosion/irritation	Category 3
Toxic to reproduction	Category 2
Specific target organ toxicity (single exposure)	Category 3
Hazardous to the aquatic environment - acute hazard	Category 2

Remark:

Percentage of mixture consisting of ingredient(s) of unknown oral toxicity: 0.00%

Percentage of mixture consisting of ingredient(s) of unknown dermal toxicity: 0.00%

Percentage of mixture consisting of ingredient(s) of unknown inhalation toxicity: 93.82%

GHS label elements

Pictogram or symbol



Signal word

Danger

Hazard statement:

- H225 Highly Flammable liquid and vapour
- H303 May be harmful if swallowed
- H316 Causes mild skin irritation
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness
- H361 Suspected of damaging fertility or the unborn child
- H401 Toxic to aquatic life

Precautionary statement

[PREVENTION]

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- 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.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / protective clothing / eye protection / face protection.

[RESPONSE]

- 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.
- P308+P313 IF exposed or concerned Get medical advice / attention.
- P312 Call a POISON CENTER or doctor / physician if you feel unwell.
- P332+P313 IF skin irritation occurs Get medical advice / attention.
- P370+P378 In case of fire Use dry sand, dry chemical or alcohol-resistant foam for extinction.

[STORAGE]

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- 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)
1-ACETOXY-2-ETHOXYETHANE	111-15-9	83.83 - 97.06
Acetone	67-64-1	5.87 - 6.80
Toluene	108-88-3	5.30 - 6.14

4. FIRST AID 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 contaminated 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 vomiting unless directed to do so by medical personnel.
Most important symptoms/effects, acute and delayed	Dizziness. Drowsiness. Headache. Nausea. Vomiting. Weakness. Unconsciousness. Skin and eye redness. Pain. Nausea. Vomiting.

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 mixture 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-sparking 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 not leave containers open. Avoid repeated or prolonged contact with skin.

Conditions for safe storage, including any incompatibilities

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

1-ACETOXY-2-ETHOXYETHANE

OSHA

PEL-TWA 100⁹

Skin notification Y⁹

NIOSH

REL-TWA 0.5⁹

Skin notification Y⁹

ACGIH

TLV-TWA 5⁹

Skin notification Y⁹

CAL/OSHA

PEL-TWA 5⁹

Skin notification Y⁹

Safe Work Australia (Australia, 4/2024)

TWA : 2 ppm 8 hours. ¹²

TWA : 10.9 mg/m³ 8 hours. ¹²

Acetone

OSHA

PEL-TWA 1000¹⁰

Skin notification N¹⁰

NIOSH

REL-TWA 250¹⁰

Skin notification N¹⁰

ACGIH

TLV-TWA 2500¹⁰

TLV-STEL 500¹⁰

Skin notification N¹⁰

CAL/OSHA

PEL-TWA 500¹⁰

PEL-STEL 750¹⁰

PEL-C 3000¹⁰

Skin notification N¹⁰

Safe Work Australia (Australia, 4/2024)

TWA : 250 ppm 8 hours. ¹²

TWA : 594 mg/m³ 8 hours. ¹²

STEL : 500 ppm 15 minutes. ¹²

STEL : 1187 mg/m³ 15 minutes. ¹²

Toluene

OSHA

PEL-TWA 200 ppm¹⁸

PEL-C 300 ppm; 500 ppm (Peak) [10 min maximum in an 8 hr shift]¹⁸

Skin notification N¹⁸

NIOSH

REL-TWA 100 ppm (375 mg/m³)¹⁸

REL-STEL 150 ppm (560 mg/m³)¹⁸

Skin notification N¹⁸

ACGIH

TLV-TWA 20 ppm [2006]¹⁸

Skin notification N¹⁸

CAL/OSHA
 PEL-TWA 10 ppm (37 mg/m³)¹⁸
 PEL-STEL 150 ppm (560 mg/m³)¹⁸
 PEL-C 500 ppm¹⁸
 Skin notification Y¹⁸
 Safe Work Australia (Australia, 4/2024)
 TWA : 20 ppm 8 hours. ¹⁹
 TWA : 75 mg/m³ 8 hours. ¹⁹
 Provide adequate ventilation. Install local exhaust.

Appropriate engineering controls

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

Physical state	Liquid
Colour	Transparent
Odour	Organic solvent
pH	Not available
Melting point/freezing point	Not Available
Boiling point or initial boiling point and boiling range	56.0 °C (132.9 °F) (Acetone)
Flash point	-20.0 °C (-4.0 °F) (Acetone)
Flammability	Flammable
Lower and upper explosion limit/flammability limit	Not available
Vapour pressure	240 hPa at 20 °C (Acetone)
Density and/or relative density	0.9 - 1 g/cm ³
Relative vapour density	Not available
Solubility	Soluble in Organic solvent
Partition coefficient n-octanol/water (log value)	Not applicable
Auto-ignition temperature	465.0 °C (869.0 °F) (Acetone)
Decomposition temperature	Not applicable
Viscosity	Not available
Particle characteristics	Not applicable

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 = 3066.63 mg/kg (Category 5) 1-ACETOXY-2-ETHOXYETHANE LD50 (rat) oral = 2900.00 mg/kg ¹ Acetone LD50 (rat) oral = 5800.00 mg/kg ² Toluene LD50 (rat) oral = 5000.00 mg/kg ¹³
Acute toxicity (dermal)	ATEmix = 10209.35 mg/kg (Not classified)

	1-ACETOXY-2-ETHOXYETHANE LD50 (rabbit) dermal = 10300.00 mg/kg ¹
	Acetone LD50 (rabbit) dermal = 7426.00 mg/kg ²
	Toluene LD50 (rabbit) dermal = 14100.00 mg/kg ¹³
Acute toxicity (inhalation)	Not available
Skin corrosion and skin irritation	Causes mild skin irritation (Toluene)
Serious eye damage or eye irritation	Not classified
Respirator and skin sensitization	Not classified
Skin sentization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Suspected of damaging fertility or the unborn child (Toluene)
Specific target organ toxicity following single exposure	May cause respiratory irritation (Acetone,Toluene)
Specific target organ toxicity following repeated exposure	Not classified
Aspiration hazard	Not classified

12. ECOLOGICAL INFORMATION

Acute aquatic hazard	Toxic to aquatic life <u>1-ACETOXY-2-ETHOXYETHANE</u> LC50 (fish) 96 hr = 40 mg/L⁵ <u>Acetone</u> LC50 (fish) 96 hr = 4740 mg/L² <u>Toluene</u> LC50 (fish) 96 hr = 7.3 mg/L¹⁵ EC48 (shrimp) 48 hr = 6 mg/L¹⁵ ErC-EC72 (Fungi) 96 hr = 12.5 mg/L¹⁵
Long term aquatic hazard	No information
Persistence and degradability	Rapidly degradable (Acetone,Toluene)
Bioaccumulative potential	Bioaccumulative potential <u>1-ACETOXY-2-ETHOXYETHANE</u> log KOW = 0.24⁶ BCF = 3⁶ <u>Acetone</u> log KOW = -0.24⁷ BCF = 0.69⁷ <u>Toluene</u> log KOW = 2.73¹⁷ BCF = 13¹⁷
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

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References

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5. <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~7TG1XJ:1> (03-05-19)
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14. <https://echa.europa.eu/brief-profile/-/briefprofile/100.003.297> (3-5-19)
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17. <https://pubchem.ncbi.nlm.nih.gov/compound/1140#section=Environmental-Fate> (03-05-19)
18. <https://www.osha.gov/chemicaldata/chemResult.html?recNo=89> (03-05-19)
19. Safe Work Australia Workplace exposure limits for airborne contaminants April 2024 (21-8-2024)