

## SAFETY DATA SHEET

BANDU

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Compilation date: 09/09/2013

Revision date: 07/01/2015

Revision No: 2

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name: BANDU

Product code: 10257

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: Insecticide.

#### 1.3. Details of the supplier of the safety data sheet

Company name: Headland Agrochemicals

Rectors Lane

Pentre

Flintshire

CH5 2DH

United Kingdom

Tel: +44(0)1244 537370

Fax: +44(0)1244 532097

Email: [enquiry@headlandgroup.com](mailto:enquiry@headlandgroup.com)

#### 1.4. Emergency telephone number

Emergency tel: +44(0)1244 537370

(office hours only)

### Section 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification under CHIP: \* -: R10; Xn: R20/22; Xi: R37/38; Xi: R41; Xn: R65; N: R50/53

Classification under CLP: \* Flam. Liq. 3: H226; Acute Tox. 4: H302; Asp. Tox. 1: H304; Skin Irrit. 2: H315; Eye Dam. 1: H318; STOT SE 3: H335; STOT SE 3: H336; Aquatic Chronic 1: H410; Acute Tox. 4: H332; -: EUH401

**Most important adverse effects:** Flammable. Harmful by inhalation and if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes. Harmful: may cause lung damage if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 2.2. Label elements

Label elements under CLP:

Hazard statements: \* H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

[cont...]

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H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

H410: Very toxic to aquatic life with long lasting effects.

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

**Signal words:** \* Danger

**Hazard pictograms:** \* GHS02: Flame

GHS05: Corrosion

GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental



**Precautionary statements:** \* P240: Ground/Bond container and receiving equipment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307+311: IF exposed: Call a POISON CENTER or doctor.

P501: Dispose of contents/container to hazardous or special waste collection point.

## Label elements under CHIP:

**Hazard symbols:** Harmful.

Dangerous for the environment.



**Risk phrases:** \* R10: Flammable.

R20/22: Harmful by inhalation and if swallowed.

R37/38: Irritating to respiratory system and skin.

R41: Risk of serious damage to eyes.

R65: Harmful: may cause lung damage if swallowed.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S23: Do not breathe vapour.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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S35: This material and its container must be disposed of in a safe way.

S37/39: Wear suitable gloves and eye / face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S57: Use appropriate container to avoid environmental contamination.

S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

**Precautionary phrases:** To avoid risks to man and the environment, comply with the instructions for use.

## 2.3. Other hazards

**Other hazards:** Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC

EINECS	CAS	CHIP Classification	CLP Classification	Percent
265-199-0	64742-95-6	-: R10; Xi: R37; Xn: R65; -: R66; -: R67; N: R51/53	Flam. Liq. 3: H226; Asp. Tox. 1: H304; STOT SE 3: H335; Aquatic Chronic 2: H411; STOT SE 3: H336	10-30%

TETRAPROPYLENE BENZENE SULFONATE, CALCIUM SALT

234-360-7	11117-11-6	Xn: R21; Xi: R38; Xi: R41; -: R52/53	Acute Tox. 4: H312; Skin Irrit. 2: H315; Eye Dam. 1: H318; Aquatic Chronic 3: H412	1-5%
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2-METHYLPROPAN-1-OL

201-148-0	78-83-1	-: R10; Xi: R37/38; Xi: R41; -: R67	Flam. Liq. 3: H226; STOT SE 3: H335; Skin Irrit. 2: H315; Eye Dam. 1: H318; STOT SE 3: H336	1-5%
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DELTAMETHRIN

258-256-6	52918-63-5	T: R23/25; N: R50/53	Acute Tox. 3: H331; Acute Tox. 3: H301; Aquatic Acute 1: H400; Aquatic Chronic 1: H410	1-5%
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2,6-DI-TERT-BUTYL-4-METHYLPHENOL

204-881-4	128-37-0	N: R50/53	Aquatic Acute 1: H400; Aquatic Chronic 1: H410	<1%
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## Section 4: First aid measures

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## 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.
- Eye contact:** Bathe the eye with running water for 15 minutes. Remove contact lenses, if present, after the first few minutes, then continue rinsing. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Consult a doctor if irritation persists or problems with vision occur.
- Ingestion:** Wash out mouth with water. Give water to drink in small doses. Do not induce vomiting. Risk of product entering the lungs on vomiting after ingestion. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

## 4.2. Most important symptoms and effects, both acute and delayed

- Skin contact:** There may be irritation and redness at the site of contact.
- Eye contact:** \* There may be pain and redness. The eyes may water profusely. May cause permanent damage.
- Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
- Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. There may be coughing and a sore throat.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure. Systemic effects may include: Tachycardia, Hypotension, Blurred vision, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Muscular fasciculation, Apathy.

## 4.3. Indication of any immediate medical attention and special treatment needed

- Immediate / special treatment:** \* This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning. Initial treatment should be symptomatic. In cases of significant ingestion, gastric lavage should be considered only within the first two hours. The application of activated charcoal and sodium sulphate is always advisable. Keep respiratory tract clear. Supply oxygen or artificial respiration if needed. In cases of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used. Atropine or derivatives of adrenaline should not be used. There is no specific antidote. Recovery is spontaneous and without sequelae.

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## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide. Do not use high volume water jet. Use water spray to cool containers.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Flammable. In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** \* Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Contaminated fire extinguishing water should not be discharged into drains, if preventable.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** \* Refer to section 8 of SDS for personal protection details. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Avoid contact with spilled material or contaminated surfaces. Eliminate all sources of ignition.

### 6.2. Environmental precautions

**Environmental precautions:** \* Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body. If spillage enters rivers or watercourses inform the Environment Agency (emergency telephone number 0800 807060).

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean floors and contaminated objects with plenty of water. Do not use equipment in clean-up procedure which may produce sparks.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Keep away from heat and sources of ignition. Vapours may form explosive mixture with air. Use non-sparking tools. Take precautionary measures against static discharges. Carefully rinse hands after handling and before eating, drinking or smoking.

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## 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Keep away from direct sunlight. Protect from frost. The room should only be used for storage of chemicals, and without access to unauthorised persons or children. Food, drink, feed and seed should not be present.

**Suitable packaging:** Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH). Black mild steel sheet with interior coating.

## 7.3. Specific end use(s)

**Specific end use(s):** Refer to label.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Hazardous ingredients:**

**2-METHYLPROPAN-1-OL**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	154 mg/m <sup>3</sup> (50 ppm)	231 mg/m <sup>3</sup> (75 ppm)	-	-

### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

**Respiratory protection:** Gas/vapour filter, type A: organic vapours (EN141). Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure.

**Hand protection:** Nitrile gloves. Minimum thickness 0.40 mm. Always wash hands after use.

**Eye protection:** Wear goggles conforming to EN166 (Field of Use 5 or equivalent). Ensure eye bath is to hand.

**Skin protection:** Wear standard overall and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

**Environmental:** Refer to specific Member State legislation for requirements under Community environmental legislation.

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## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Yellow

**Odour:** Aromatic

**Solubility in water:** Miscible

**Flash point°C:** 48

**Relative density:** 0.89 g/ml

**pH:** 4.0 - 6.0 (1% soln)

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Extremes of temperature. Direct sunlight.

### 10.5. Incompatible materials

**Materials to avoid:** No data available.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
DERMAL	RAT	LD50	>2000	mg/kg
VAPOURS	RAT	4H LC50	2.69	mg/l
ORAL	RAT	LD50	416	mg/kg

[cont...]

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## Hazardous ingredients:

### SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC

ORL	RAT	LD50	8400	mg/kg
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### DELTAMETHRIN

ORL	MUS	LD50	20	mg/kg
ORL	RAT	LD50	9360	µg/kg
SKN	RAT	LD50	>800	mg/kg

### 2,6-DI-TERT-BUTYL-4-METHYLPHENOL

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	>6000	mg/kg

## Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH ING	Hazardous: calculated
Irritation	OPT INH DRM	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** \* There may be pain and redness. The eyes may water profusely. May cause permanent damage.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. There may be coughing and a sore throat.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure. Systemic effects may include: Tachycardia, Hypotension, Blurred vision, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Muscular fasciculation, Apathy.

## Section 12: Ecological information

### 12.1. Toxicity

#### \* Ecotoxicity values:

Species	Test	Value	Units
ALGAE ( <i>Selenastrum capricornutum</i> )	96H EC50	60.5	mg/l
RAINBOW TROUT ( <i>Oncorhynchus mykiss</i> )	96H LC50	0.00925	mg/l

[cont...]



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DAPHNIA (Daphnia magna)	48H EC50	0.00011	mg/l
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## 12.2. Persistence and degradability

**Persistence and degradability:** Deltamethrin: Koc = 10,240,000; not rapidly biodegradable.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Not expected to bioaccumulate. Deltamethrin: log Pow = 6.4 at 25°C; Bioconcentration factor (BCF) = 1400.

## 12.4. Mobility in soil

**Mobility:** Deltamethrin is immobile in soil.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT substance.

## 12.6. Other adverse effects

**Other adverse effects:** Very toxic to aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

**Waste code number:** 02 01 08

**Disposal of packaging:** Small containers (<10 L): Rinse thoroughly using an integrated pressure rinsing device or by manually rinsing three times. Add washings to the sprayer at the time of filling. Dispose of empty and clean packaging safely. Large containers (>25 L): Do not rinse or re-use for any purpose. Return large containers to supplier.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1993

### 14.2. UN proper shipping name

**Shipping name:** FLAMMABLE LIQUID, N.O.S.  
(DELTAMETHRIN; SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC)

### 14.3. Transport hazard class(es)

**Transport class:** 3

[cont...]

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## 14.4. Packing group

Packing group: III

## 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

## 14.6. Special precautions for user

**Special precautions:** \* Special provision 640E (ADR/RID/ADN). Emergency action code 3Y (UK 'Carriage' Regulations).

**Tunnel code:** D/E

**Transport category:** 3

## 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

**Transport in bulk:** The product is not transported in bulk tankers.

## Section 15: Regulatory information

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

**Specific regulations:** WHO-classification: II (Moderately hazardous) Product Registration Number: MAPP 16153.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

H226: Flammable liquid and vapour.

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H331: Toxic if inhaled.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

[cont...]

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H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

R10: Flammable.

R20/22: Harmful by inhalation and if swallowed.

R21: Harmful in contact with skin.

R23/25: Toxic by inhalation and if swallowed.

R37/38: Irritating to respiratory system and skin.

R37: Irritating to respiratory system.

R38: Irritating to skin.

R41: Risk of serious damage to eyes.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65: Harmful: may cause lung damage if swallowed.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.