1. Identification of the substance/mixture and of the company/enterprise

1.1 Product identifier: IODINE VALUE TEST KIT ON PALMOIL

1.2 Relevant identified uses of the substance or mixture:
Reagent for food analysis

1.3 Details of the supplier of the safety data sheet:
CDR S.r.l.
Via degli Artigiani, 6
50020 Ginestra F.na (FI)
Italy
Tel: +39 055-871431
Fax: +39 055-8714322

1.4 Emergency phone number:
+39 055-871431

E-mail TC: cdr@cdrmediared.it

2. Hazards identification

2.1 Classification of the substance or mixture
Classification according to Directive 67/548/EEC - Directive 1999/45/EC:
F, R11; Xn; R20/21/22; Xi, R41

Nature of special risks attributed:
R11 - Highly flammable.
R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R41 - Risk of serious damage to eyes.

The product easy inflames if subordinate to an ignition source. (flash point < 55° C)

2.2 Label elements:
Warning symbols:
F - Highly flammable
Xn - Harmful

Hazard sentences (R):
R11 - Highly flammable.
R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R41 - Risk of serious damage to eyes.
Product: IODINE VALUE TEST KIT ON PALMOIL

Caution recommendations (S):
S7 - Keep container tightly closed.
S16 - Keep away from sources of ignition — No smoking.
S25 - Avoid contact with eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S29 - Do not empty into drains.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S60 - This material and its container must be disposed of as hazardous waste.

Contains:
p-anisidinium chloride

2.3 Other hazards:
none information

3. Composition/Information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Concentration (C)</th>
<th>Classification Directive 67/548/CEE</th>
<th>Regulation CE/1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-1-ol</td>
<td>75 &lt;= C &lt; 80</td>
<td>R67 F</td>
<td>H336 H225</td>
</tr>
<tr>
<td>Cas No 71-23-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE No 200-746-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX No 603-003-00-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethanol</td>
<td>16 &lt;= C &lt; 22</td>
<td>R11 F</td>
<td>H336 H225</td>
</tr>
<tr>
<td>Cas No 64-17-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE No 200-578-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX No 603-002-00-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-anisidinium chloride</td>
<td>0 &lt;= C &lt; 1</td>
<td>R26/27/28 T+</td>
<td>H300 H310 H330 H373</td>
</tr>
<tr>
<td>Cas No 20265-97-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE No 243-657-0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The complete text of -R- phrases is specified in section 16.

4. First-aid measures

4.1 Description of first aid measures

Inhalation
Remove to fresh air. If breathing is irregular seek medical advice.

Skin contact
Remove contaminated clothing. Wash immediately with plenty of water and soap. In case of irritation seek medical attention. Wash contaminated clothing before using them.

Eyes contact
Irrigate copiously with clean, fresh water for at least 15 minutes, keeping opened eyes. Seek medical attention.

**Ingestion**
Obtain medical attention. Don't induce vomiting. Never give anything by mouth to an unconscious person.

**Other**
Change contaminated clothing.

4.2. **Most important symptoms and effects, both acute and delayed**
not available

4.3. **Indication of any immediate medical attention and special treatment needed**
not available

5. **Fire-fighting measures**

5.1 **Extinguishing media**
Advised extinguishing agents:
CO2, nebulized water, foam, chemical powder for flammable liquids.

Unappropriate extinction methods:
Jets of water. Water may not be effective to extinguish the fire, nevertheless it should be used to cool the containers exposed to flames and prevent fires and explosions. For leakage and spillage that have not caught fire, nebulized water may be used to disperse the flammable vapours and protect the people involved in stopping the leakage.

5.2. **Special hazards arising from the substance or mixture**
The product under fire condition may develop irritant/toxic gas (NOx, HCl)

5.3. **Advice for firefighters**
wear equipment complete with helmet and face shield and protection of the neck, selfbreathing apparatus at pressure or demand, insulative jacket and trousers, with bands around the arms, legs and waist.Water used in fire-fighting has to be disposed following Local regulation.

6. **Accidental release measures**

6.1. **Personal precautions, protective equipment and emergency procedures**
Avoid contact with skin and eyes. In case of formation of vapours use suitable protective devices. Supply a good air circulation. Move away any unauthorised person.

6.2. **Environmental precautions**
Collect the product in suitable container for disposal. Notify authorities if product enters sewer or public waters.

6.3. **Methods and material for containment and cleaning up**
Cover the spillage with inert absorbent material. Collect as far as possible the resulting mass and discard the remainder by spraying water.

6.4 **Reference to other sections**
Product: **IODINE VALUE TEST KIT ON PALMOIL**

Refer to paragraphs 8 and 13 for more information.

### 7. Handling and storage

#### 7.1. Precautions for safe handling
Supply good air circulation in working area. Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation.

#### 7.2. Conditions for safe storage, including any incompatibilities
Store the packaging closed in a fresh and ventilated area, far from from sources of ignition. Store at temperatures between -20°C.

#### 7.3. Specific end use(s)
For particular uses of the product, is necessary to refer to the specific information or contact the technical service of the Company.

### 8. Exposure controls/personal protection

#### 8.1. Control parameters

- **Propan-1-ol**
  - TLV: 200 ppm as TWA 400 ppm STEL as A3 (confirmed animal carcinogen with unknown relevance to humans); Proposed amendments (ACGIH 2005).
- **ethanol**
  - TLV-ACGH:1880mg/m3 (as TWA)

#### 8.2. Exposure controls
Avoid all unnecessary exposure, handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke while handling it. Accurately wash the hands with soap and water before meals and at the end of the work shift.

#### 8.3. Individual protection
The DPI’s choice must be done on the basis of the test’s results obtained according to the rule EN 374

- Hand protection: : protective gloves
- Eye protection : protective goggles
- Skin protection : suitable protective clothing
- Respiratory protection : mask with filter in case of nebulized product

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical and chemical properties</th>
<th>Value</th>
<th>Determination method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>colourless liquid</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>acid</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>not available</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&lt; 55°C</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not available</td>
<td></td>
</tr>
</tbody>
</table>
Product: IODINE VALUE TEST KIT ON PALMOIL

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>not pertinent</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>not available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>not available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>not available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>not oxidising</td>
</tr>
</tbody>
</table>

9.2. Other information
VOC (Directive 1999/13/CE): 98%

10. Stability and reactivity

10.1. Reactivity
In contact with strong oxidants exothermal reaction may occur.
ETHANOL: It reacts slowly with calcium hypochlorite, silver oxide and ammonia, causing fire and explosion. It reacts violently with strong oxidants such as nitric acid, silver nitrate, mercury nitrate or magnesium perchlorate, causing fire and explosion.
propan-1-olo: it reacts with strong oxidants, causing fire and explosion. The vapour mixes well with air, it may form explosive mixtures. It attacks plastic and rubber.

10.2. Chemical stability
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions
ETHANOL: It reacts violently with strong oxidants such as nitric acid, silver nitrate, mercury nitrate or magnesium perchlorate, causing fire and explosion.
p-anisidinium chloride
possibility of hazardous reactions with: strong acids, halides, anidrydes, strong oxidants

10.4. Conditions to avoid
none information

10.5. Incompatible materials
none information

10.6. Hazardous decomposition products
Due to thermal decomposition or in the event of a fire vapours may be produced potentially dangerous to health.

11. Toxicological information

11.1. Information on toxicological effects

Acute effects:
The product is harmful following acute exposure to it and causes serious health hazards if inhaled, ingested or brought into contact with skin. If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

**Propan-1-ol**

**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its vapor and ingestion.

**INHALATION RISK:** A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20 °C, but on spraying or dispersing, much faster. Effects of short-term and Substance irritates the eyes. The substance may cause effects on the central nervous system. Exposure to high concentrations can lead to unconsciousness.

**REPEATED OR LONG TERM EFFECTS OF EXPOSURE:** The liquid defats skin.

**ACUTE HAZARDS / SYMPTOMS**


**INGESTION** Abdominal pain. Sore throat. Vomiting. (See Inhalation).

**NOTE** The use of alcoholic beverages enhances the harmful effect.

**ethanol**

**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its vapor and ingestion.

**INHALATION RISK:** A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20 °C.

**SHORT TERM EFFECTS OF EXPOSURE:** The substance irritates to eyes. Inhalation of high concentration of vapor may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system.

**REPEATED OR LONG TERM EFFECTS OF EXPOSURE:** The liquid degreases the skin. The substance may have effects on the high central nervous system, respiratory tract, causing irritation, headaches, tiredness and lack of concentration. See Notes.

**ACUTE HAZARDS / SYMPTOMS**

**INHALATION** Cough. Headache. Fatigue. Drowsiness.


**NOTES** Ethanol consumption during pregnancy can have adverse effects on the unborn child. Chronic ingestion of ethanol may cause liver cirrhosis.

**p-anisidinium chloride**

after skin contact it may form methemoglobin with headache, cardiac deseases, lowering blood pression. Main symptom: cyanosis.

**Corrosive/irritation power:**

**Eyes:** serious ocular lesions

**Skin:** very irritant

---

**12. Ecological information**

**12.1. Toxicity:**

Use this product according to good working practices. Avoid litter. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

**ETHANOL**

LC50: > 8140 mg/l/48h (Leuciscus idus)
12.2. **Persistence and degradability:**
ETHANOL
COD: 2000 mg / g
Biodegradability: 94%

12.3. **Bioaccumulative potential:**
ETHANOL
log Pow <-0.32
propan-1-olo:
logPow:0.25

12.4. **Mobility in soil:** not available

12.5. **Results of PBT and vPvB assessment:** not available

12.6. **Other adverse effects:** not available

*This product doesn't contain AOX*

### 13. Disposal considerations

Operate following the current Local or National Laws.
The non reclaimed containers have to be disposed as the product.
Consider the possibility of burning the product in a suitable inceneritor.

### 14. Transport information

These goods must be packed in their original packings or in packings made of materials resistant to their content and not reacting dangerously with it. This good, being shipped under the provision for limited quantity, is packed and labelled in accordance with ADR Regulation —chapter 3.4- IMDG Code —chapter 3.4- IATA regulation — chapter 5.0.3- (i.e. 0.5 l for inner packaging max. and 1 l for outer packaging max.) and no other provision has to be respected.

**RID/ADR:**
UN number: 1987  Class: 3
Classification: F1  Packing group: II
Tunnel restriction code: (D/E)

**Transport by sea (IMDG Code):**
UN number: 1987  Class: 3
Packaging group: II  EmS: F-A, S-B
Marine pollutant no

**Transport by air (ICAO-IATA):**
Class: 3  Packaging group: II
Shipping name: Alcohols, n.o.s. (Contains: propan-1-ol, ethanol )
Labelling: n.3
Product: IODINE VALUE TEST KIT ON PALMOIL

15. Regulatory information

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

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Cas</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>428/2009 ex CE 1334/2000 Ann.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>273/04 Tab.1 Cat.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>273/04 Tab.1 Cat.2</td>
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<tr>
<td>273/04 Tab.1 Cat.3</td>
<td>-</td>
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<tr>
<td>1907/2006 Ann. XIV (Substances SVHC)</td>
<td>-</td>
<td>-</td>
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<tr>
<td>552/2009 (amending Reg. CE 1907/2006 as regards Ann. XVII)</td>
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<td>-</td>
</tr>
<tr>
<td>238/05 (Seveso ter) Ann.1 part 1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>238/05 (Seveso ter) Ann.1 part 2</td>
<td>-</td>
<td>Mixture classificated HIGHLY FLAMMABLE</td>
</tr>
</tbody>
</table>

15.2. Chemical safety assessment

none

16. Further information

Description of the sentences of risk set out in paragraph 3
H225 = Highly flammable liquid and vapour.
H318 = Causes serious eye damage.
H336 = May cause drowsiness or dizziness.
H300 = Fatal if swallowed.
H310 = Fatal in contact with skin.
H330 = Fatal if inhaled.
H373 = May cause damage to organs through prolonged or repeated exposure.

Description of the safety advice (R) exposed to point 3:
R11 = Highly flammable.
R26/27/28 = Very toxic by inhalation, in contact with skin, if swallowed.
R33 = Danger of cumulative effects.
R41 = Risk of serious damage to eyes.
R67 = Vapours may cause drowsiness and dizziness.

Classification based on data of all components of the mixture

GENERAL BIBLIOGRAPHY:
1. Directive 1999/45/EC as amended
5. Regulation (EC) 790 / 2009
6. Regulation (EU) 453/2010
Product: IODINE VALUE TEST KIT ON PALMOIL

7. The Merck Index. Ed 10
8. Handling Chemical Safety
9. NIOSH - Registry of Toxic Effects of Chemical Substances
10. INRS - Fiche Toxicologique
11. Patty - Industrial Hygiene and Toxicology

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.