1 Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifiers
Product Number R008
Product Name Kovacs' Indole Reagent
REACH Registration Number This product is a mixture. Reach registration number is not available for this mixture.

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant identified uses Laboratory Chemicals, Analytical Purpose, Biochemical Analysis For InVitro Diagnostic Use

1.3 Details of the supplier of the safety data sheet
Produced by HiMedia Laboratories Private Limited
Address 23, Vadhani Industrial Estate, LBS Marg, Ghatkopar (W), Mumbai - 400 086 India
Tel. No. +91-22-2500 0970, +91-22-2500 1607 Fax No. : +91-22-25002468
Mail Id info@himedialabs.com Website : www.himedialabs.com

1.4 Emergency Tel. No. Please contact the regional HiMedia representation in your country

2 Hazards Identification

2.1 Classification of the substance or mixture
CLP Classification - Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
Flammable liquids, (Category 3), H226
Acute toxicity, Oral, (Category 4), H302
Skin corrosion or irritation, (Category 1A), H314
Serious eye damage or eye irritation, (Category 1), H318
Acute toxicity, Inhaled, (Category 4), H332
Specific target organ toxicity, single exposure, Respiratory tract irritation, (Category 3), H335
Specific target organ toxicity, single exposure, Narcotic effects, (Category 3), H336

2.2 Label elements
Labeling according to Regulation (EC) No.1272/2008

Pictogram
Signal word Danger

Hazard Statement(s)
H226 Flammable liquid and vapour
H302 Harmful if swallowed
H315 Causes skin irritation
H318 Causes serious eye damage
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness

Precautionary Statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other Hazards
None

3 Composition/Information On Ingredients

3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>iso Amyl alcohol</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=70 - &lt;=80%</td>
</tr>
<tr>
<td>CAS No. : 123-51-3</td>
<td>Flam. Liq. 3; Acute Tox.inhal. 4; STOT SE 3</td>
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</tr>
<tr>
<td>EC No. : 204-633-5</td>
<td>H226; H332; H335</td>
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</tr>
<tr>
<td>Molecular Formula : C(5)H(12)O</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=20 - &lt;=30%</td>
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<tr>
<td>CAS No. : 7647-01-0</td>
<td>Skin Corr. 1B; STOT SE 3</td>
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</tr>
<tr>
<td>EC No. : 231-595-7</td>
<td>H314; H335</td>
<td></td>
</tr>
<tr>
<td>Index-No : 017-002-01-X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Refer Section 16 for complete statement of H codes and its classification

4 First Aid Measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash with plenty of soap and water. Consult a physician.

In case of eye contact
Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of immediate medical attention and special treatment needed
No data available.

5 Fire Fighting Measures
5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media
No data available.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary

5.4 Further information
No data available

6 Accidental Release Measures
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see Section 13.

7 Handling and Storage
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended Storage Temperature: On receipt store between 10-30°C

7.3 Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8 Exposure Controls/Personal Protection
8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.

Personal protective equipment

Hygiene measure
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection
Tightly fitting safety goggles; Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environment exposure controls
Do not empty into drains.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Greenish yellow solution</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (Solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>
9.2 Other safety information
No data available

10 Stability and Reactivity
10.1 Reactivity
No data available
10.2 Chemical stability
No data available
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
No data available
10.5 Incompatible materials
No data available
10.6 Hazardous decomposition products
Other Decomposition products not known.

11 Toxicological Information
11.1 Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Carcinogenicity
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid)

Reproductive toxicity
No data available

Specific target organ toxicity- single exposure
No data available

Aspiration hazard
No data available

11.2 Components

Amyl alcohol
Acute oral toxicity
Mouse LD50: 3,000 mg/kg

Acute inhalation toxicity
Mouse LC50: < 14 mg/L air

Acute dermal toxicity
Rabbit LD50: 3,662 mg/kg (As per OECD Guideline 402)

Skin irritation
Rabbit Result: Irritant (ECHA)

Eye irritation
No data available

Sensitisation
No data available

Ames test
Salmonella Typhimurium
Result: Negative (As per OECD Guideline 471)

Mutagenicity (mammal cell test)
Mouse
Result: Negative (As per OECD Guideline 474)

Carcinogenicity
No data available

Toxicity to Reproduction
No data available

Teratogenicity
No data available

Additional information:
RTECS: SB9800000

Hydrochloric acid (HCL)

Acute Oral Toxicity
Rabbit LD50: 900 mg/kg

Acute toxicity of the vapour
Mouse LC50: 1108 ppm, 1h
Rat LC50: 3124 ppm, 1h

Carcinogenic Effects
Classified 3 (Not for human) by IARC.

Reproductive Toxicity
Cause adverse reproductive effects.

Skin
Causes severe skin irritation and burns.

Eyes
Causes severe eye irritation/conjunctivitis.

Inhalation
May be fatal if inhaled.

Ingestion
May be fatal if swallowed.

Additional information:
RTECS: MW4025000
12 Ecological Information

12.1 Toxicity

Components:
- Amyl alcohol
  
  *Toxicity to fish*
  Oncorhynchus mykiss LC50: 700mg/L; 96h (As per OECD Guideline 203)

  *Toxicity to aquatic invertebrates*
  Daphnia magna EC50: > 120 mg/L; 48h (As per OECD Guideline 202)

  *Toxicity to microorganisms*
  Activated sludge EC50: > 1,000 mg/L; 180min (As per OECD Guideline 209)

Components
- Hydrochloric acid
  
  Ecotoxicity
  No data available.

  Products of Biodegradation
  Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

  *Toxicity of the Products of Biodegradation*
  The products of degradation are less toxic than the product itself.

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 PBT and vPvB assessment
This preparation contains no substance considered to be persistent, bioaccumulating or toxic (PBT) at levels of 0.1% or higher.

12.6 Other adverse effects
No data available

13 Disposal Considerations

13.1 Waste treatments methods

Product
Offer surplus and non-recyclable solutions to a licenced disposal company. Contact a licenced professional waste disposal service to dispose off this material.

13.2 Contaminated packaging
Dispose of as unused product.
14 Transport Information
14.1 UN-No
ADNR : 2920  ADR : 2920  IATA_C : 2920  IATA_P : 2920  IMDG : 2920  RID : 2920
14.2 UN proper shipping name
ADNR : Corrosive liquids, flammable, n.o.s.
ADR : Corrosive liquids, flammable, n.o.s.
IATA_C : Corrosive liquids, flammable, n.o.s.
IATA_P : Corrosive liquids, flammable, n.o.s.
IMDG : Corrosive liquids, flammable, n.o.s.
RID : Corrosive liquids, flammable, n.o.s.
14.3 Transport hazard class(es)
ADNR : 8  ADR : 8  IATA_C : 8  IATA_P : 8  IMDG : 8  RID : 8
14.4 Packaging group
ADNR : II  ADR : II  IATA_C : II  IATA_P : II  IMDG : II  RID : II
14.5 Environmental hazards
ADNR : No  ADR : No  IMDG : Marine pollutant - No  IATA_C : No  IATA_P : No  RID : No
14.6 Special precautions for use
No data available

15 Regulatory Information
This safety datasheet complies with the requirements of Regulation(EC) No. 1907/2006.
15.1 Safety health and environment regulations/legislation specific for the substance or mixture
No data available
15.2 Chemical Safety Assessment
No data available

16 Other information
Text of H codes and classification mentioned in section 3
H226 Flammable liquid and vapour
H314 Causes severe skin burns and eye damage
H332 Harmful if inhaled
H335 May cause respiratory irritation
Acute Tox.inhal. 4 Acute toxicity, inhaled, Category 4
Flam. Liq. 3 Flammable liquids, Category 3
Skin Corr. 1B Skin corrosion or irritation, Category 1B
STOT SE 3 Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

Further Information
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