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

1.1 Product Identifiers
Product Code RM9020
Product Name 2,3,4-Trifluoroaniline

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet
Produced by HiMedia Laboratories Pvt. Ltd.
Address 23, Vadhani Indl.Estate, LBS Marg, Mumbai 400 086, India.
Tel. No. +91-22-2500 0970, +91-22-2500 1607
Fax No. +91-22-2500 2468

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

2. Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Acute toxicity, oral (Category 4)
Acute toxicity, dermal (Category 4)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 1)
Specific target organ toxicity, repeated exposure (Category 2)
Hazardous to the aquatic environment, long-term hazard (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Harmful in contact with skin and if swallowed.
Irritating to skin.
Risk of serious damage to eyes.
Harmful. danger of serious damage to health by prolonged exposure if swallowed.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008 [CLP]
Pictogram
Signal word Danger

Hazard Statement(s)
H302 Harmful if swallowed
H312 Harmful in contact with skin
H315 Causes skin irritation
H318 Causes serious eye damage
H373 Causes damage to organs through prolonged or repeated exposure
H411 Toxic to aquatic life with long lasting effects

Precautionary Statement(s)
P273 Avoid release to the environment.
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.

Symbol(s)

R-Phrase(s)
R21/22 Harmful in contact with skin and if swallowed.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.
R48/22 Harmful. danger of serious damage to health by prolonged exposure if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrase(s)
S23 Do not breathe vapour.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

2.3 Other hazards - none

3. Composition/Information on Ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Molecular Formula</th>
<th>( \text{C}_6 \text{H}_2 \text{F}_3 \text{NH}_2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,3,4-Trifluoroaniline</td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>3862-73-5</td>
</tr>
<tr>
<td>EC-No.</td>
<td>407-170-9</td>
</tr>
</tbody>
</table>

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 off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and 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.
5.2 **Special hazards arising from the substance or mixture**
Carbon oxides, nitrogen oxides (NOx), Hydrogen fluoride

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 vapors, 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 and dispose of as hazardous waste. 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.

7.3 **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 : Store below 30°C

7.3 **Specific end uses**
No data available

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 product.

**Personal protective equipment**
**Hygiene measure**
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands face after working with the substance

**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 of 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 work place.
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 the 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
Appearance: Colourless to purple to brown liquid

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odour</td>
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</tr>
<tr>
<td>Odour Threshold</td>
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</tr>
<tr>
<td>Odour Threshold</td>
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</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freeze point</td>
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</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
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</tr>
<tr>
<td>Vapour pressure</td>
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</tr>
<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Water Solubility</td>
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</tr>
<tr>
<td>Partition coefficient: n-octanol/Water</td>
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</tr>
<tr>
<td>Autoignition Temperature</td>
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</tr>
<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Viscosity</td>
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</tr>
<tr>
<td>Explosive properties</td>
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</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
Strong oxidizing agents

10.6 Hazardous decomposition products
Other decomposition products - No data available

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
Germ cell mutagenicity
No data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**
No data available

**Specific target organ toxicity- single exposure**
No data available

**Aspiration hazard**
No data available

**Potential Health Effects**

**Inhalation.**
Refer Section 2

**Skin**
Refer Section 2

**Eyes**
Refer Section 2

**Ingestion**
Refer Section 2

**Additional Information**
RTECS: CY1211500

12 **Ecological Information**

12.1 **Toxicity**
No data available

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**
No data available

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 of this material.

13.2 **Contaminated packaging**
Dispose of as unused product.

14 **Transport Information**

14.1 **UN-No.**
ADR/RID: 3082  IMDG: 3082  IATA: 3082

14.2 **UN proper shipping name**
ADR/RID: 2,3,4-Trifluoro aniline
IMDG: 2,3,4-Trifluoro aniline
IATA: 2,3,4-Trifluoro aniline

14.3 **Transport hazard class(es)**
ADR/RID: 9  IMDG: 9  IATA: 9

14.4 **Packaging group**
ADR/RID: 3  IMDG: 3  IATA: 3

14.5 **Environmental hazards**
ADR/RID: No  IMDG: Marine Pollutant: No  IATA: 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
Further information
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