An ISO 9001: 2015 & GMP Certified Company Office: No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

Tel: +91 98200 41841 Email: info@ottokemi.com Web: www.ottokemi.com

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name: 1-Benzhydryl-3-azetidinone, 95%

Product Code: B 1500 CAS No: 40320-60-3

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

Use: Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification OTTO CHEMIE PVT LTD

No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number

Phone no.: + 91 98200 41841 (10:00 am - 06:00 pm)

SACTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, oral(Category 4) H302

Skin corrosion/irritation (Category 2) H315

Serious eye damage/eye irritation(Category 2A) H319

Specific target organ toxicity, single exposure; Respiratory system(Category 3) H335

Warning

Harmful if swallowed Causes skin irritation

Causes serious eye irritation May cause respiratory irritation

No Resource File

2.1

GHS Label elements, including precautionary statements Pictogram

Signal word

Hazard statement(s)

H302 H315 H319

H335 Precautionary statement(s)

P261

P305+P351+P338

Avoid breathing dust/fume/gas/mist/vapours/spray. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

Other hazards.

Additional precautionary phrases are located throughout the safety data sheet.

SACTION 3 MPOSITION, INFORMATION ON INGREDIENTS

Molecular Formula : C16H15NO Molecular Weight : 237.30

Component	Concentration
1-Benzhydrylazetidin-3-one	
CAS Number 40320-60-3	-



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SACTION 4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eve contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

B

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

4.3

SACTION 5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: alcohol-resistant foam, dry chemical or carbon dioxide

Unsuitable extinguishing media: no data

Special hazards arising from the substance or mixture

In combustion toxic fumes may form.

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Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective clothing to prevent contact with skin and eyes.

SACTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Do not attempt to take action without suitable protective clothing.

For personal protection see section 8.

6.1

Environmental precautions

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

Alert the neighbourhood to the presence of fumes or gas.

Methods and materials for containment and cleaning up

Mix with sand or vermiculite. Sweep up and shovel. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.3

Reference to other sections

For disposal see section 13.

64

SACTION 7 HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Wash hands thoroughly after handling. Ensure there is sufficient ventilation of the area.

Normal measures for preventive fire protection. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated area. Containers which are opened must be carefully resealed and kept

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upright to prevent leakage. Sealed in dry, Room Temperature

7.2

7.3 Specific end use(s)

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

SACTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8 1

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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. **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 particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a fullface supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SACTION 9 PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance Form

b) Odour

c) Odour Threshold

d) pH

e) Melting point/freezing point

f) Initial boiling point and boiling range

g) Flash point

h) Evaporation rate

i) Flammability (solid, gas)

j) Upper/lower flammability or explosive limits

k) Vapour pressure

I) Vapour density

m) Relative density

n) Water solubility

o) Partition coefficient: n-octanol/water

p) Auto-ignition temperature

q) Decomposition temperature

r) Viscosity

s) Explosive properties

t) Oxidizing properties

91

Other safety information

No data available

9.2

:Crystal - Powder / Colour: White - Yellow

No data available

No data available No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

No data available

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SACTION 10. STABILITY AND REACTIVITY

Reactivity

No data available

10.1

Chemical stability

Stable under recommended storage conditions.

10.2

Possibility of hazardous reactions

No data available

10.3

Conditions to avoid

No data available

10.4

Incompatible materials

Strong oxidizing agents.

10.5

10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, nitrogen oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg

Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity

to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SACTION 12. ECOLOGICAL INFORMATION

Toxicity

No data available

12.1

Persistence and degradability

No data available

12.2

Bioaccumulative potential

No data available

12.3

Mobility in soil

No data available

12.4

Results of PBT and vPvB assessment

No data available

12.5

Other adverse effects

No data available

SACTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Operations

Consult state, local or national regulations for proper disposal. Hand over to authorised disposal company as hazardous waste. Disposal of Packaging

Disposal must be made according to official regulations.

. 13.1

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SACTION 14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: - 14.4 Packaging group
ADR/RID: - IMDG: - IATA: - IATA: -

14.5 Environmental hazards

ADR/RID: - IMDG: - IATA: -

14.6 Special precautions for user No special precautions required 14.7 Further information No data available 14

SACTION 15. REGULATORY INFORMATION

Safety, health and environmental and national regulations:
Product is not subject to any additional regulations or provisions
Safety Assessment

No Chemical Safety Assessment

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

