An ISO 9001: 2015 & GMP Certified Company 101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel: + 91 98200 41841

Email: info@ottokemi.com Web: www.ottokemi.com

Creation Date: 26-06-2025 Revision Date: 25-11-2030

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Z-β-Aanine, 99%

Product Code: Z 3011 CAS No: 2304-94-1

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

101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate,

Chinchpada, Vasai East, Waliv, Maharashtra 401208.

Email info@ottokemi.com

1.4. Emergency telephone number

Phone no.: + 91 22 2207 0099 (9:00am - 6:00 pm).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302 Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram Signal word

Hazard statement(s) H302

H318

Precautionary statement(s)

P280

P305 + P351 + P338

Supplemental Hazard

Statements

2.3 Other hazards - none

Danger

Harmful if swallowed. Causes serious eye damage.

Wear protective gloves/ eye protection/ face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove

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

None

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Z-β-alanine N-Cbz-β-alanine : C11H13NO3 Formula Molecular weight 223.21 g/mol CAS-No. : 2304-94-1 218-967-4 EC-No. Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
N-Benzyloxycarbonyl-β-alanine		
CAS-No. 2304-94-1	Acute Tox. 4; Eye Dam. 1; H302, H318	<= 100 %
EC-No. 218-967-4	•	

For the full text of the H-Statements mentioned in this Section, see Section 16.

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SECTION 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

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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting 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)

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. 5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. 6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire

protection. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

Storage class (TRGS 510): Combustible

Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 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

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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 (EN 143) respirator cartridges as a backup to engineering controls. If th full-face 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: solid
b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing No data available
point
f) Initial boiling point and No data available

g) Flash point
h) Evaporation rate
i) Flammability (solid gas)
h to data available
No data available
No data available
No data available

n) Evaporation rate
i) Flammability (solid, gas)
j) Upper/lower
flammability or
explosive limits

No data available
No data available

k) Vapour pressure
l) Vapour density
m) Relative density
n) Water solubility
No data available
No data available
No data available

o) Partition coefficient: n log Pow: 1.28 - The preceding data, or interpretation of data, was octanol/water determined using Quantitative Structure Activity Relationship (QSAR) modeling.

No data available

No data available

P) Auto-ignition temperature q) Decomposition temperature

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions. 10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Oxidizing agents

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides. Nitrogen oxides (NOx)

Other decomposition products - No data available

In the event of fire: see section 5

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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.

SECTION 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(N-Benzyloxycarbonyl- β -alanine)

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber. Contaminated packaging Dispose of as unused product.

SECTION 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: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

IMDG:

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

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

IATA: -

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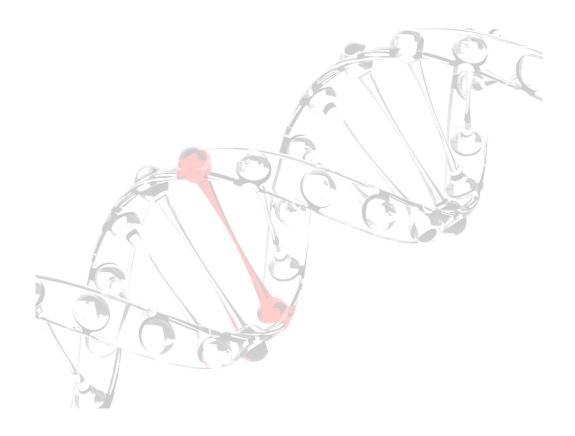
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precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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