

SAFETY DATA SHEET

1. Chemical Product and Company Identification

Product Name : D-Alanine
 Other Name : D-2-Aminopropanoic Acid
 Manufacturer : Musashino Chemical Laboratory, Ltd.
 Address : Tekko Bldg., 8-2, Marunouchi 1-Chome,
 Chiyoda-Ku, Tokyo 100-0005
 TEL : +81-3-6810-0242
 FAX : +81-3-6810-0148

2. Hazards Identification

Hazard Classification : Not classified
 Hazard Statement : Nothing

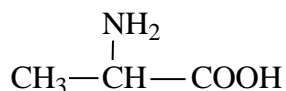
3. Composition/Information of Ingredients

It is Single Substance of D-Alanine

Ingredient and Content :

Single component

Formula



MITI No. : 9-1553
 CAS No. : 338-69-2
 EINECS : 206-418-1
 TSCA : On Inventory

4. First Aid Measures

First Aid Measures under different exposure routes :

Skin Contact :

Wash the skin immediately with soap and water.

Eye Contact :

Make sure to remove any contact lenses from the eyes before rinsing.

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5. Fire Fighting Measures

Suitable extinguishing media :

Use fire extinguishing media appropriate for surrounding materials. Water spray, Foam.

Special fire-fighting methods :

Fire-fighting in the wind. Remove from fire and move to empty place. Cool containers with water spray. Provide adequate ventilation. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Protection for fire-fighters :

Fire-fighters should wear appropriate breathing apparatus and protective equipment.

6. Accidental Release Measures

Personal precautions :

Wear personal protective equipment (See section 8).

Methods cleaning up :

Flush area with plenty of water to clean spillage area.

7. Handling and Storage

Handling :

Avoid spilling, skin and eye contact. Wear appropriate clothing to prevent any possibility of skin contact.

Storage :

Store in tightly closed original container. Protect from light, including direct sunrays. Store below room temperature.

8. Exposure Controls/Personal Protection

Engineering control :

Provide local exhaust or process enclosure ventilation system.

Personal protective equipment :

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Hand protection : Wear protective gloves.

Eye protection : Wear approved safety goggles.

Skin and body protection : Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures :

Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

9. Physical and Chemical Properties

Appearance : Crystalline powder.

Color : White

Odor : Odorless

pH(1→21)	: 5.5~7.0
Melting Point	: 289~291°C (Decomposed)
Flash Point	: Not available
Flammability	: Not flammable
Explosion Limits	: Not available (DL-Alanine: 410g/m ³ (Lower) (Powder form, 24.5°C, Humidity72%))
Solubility	: 16.4g/100mL Water (25°C)

10. Stability and Reactivity

Stability	: Stable under normal conditions. But it is hygroscopic.
Reactivity	: Nothing in particular.
Hazardous decomposition products	: Nothing in particular.

11. Toxicological Information

Acute Toxicity	: LD ₅₀ >7,870mg/kg (Mouse, Oral)
Local Effect	: No data
Mutagenicity	: Ames test : Negative

12. Ecological Information

Persistence/degradability	: Good.
COD (Mn)	: <0.02g/g
BOD	: 0.71g/g

13. Disposal Consideration

Waste Disposal methods : Incinerate in suitable combustion chamber. Dispose of waste and residues in accordance with local authority requirements.

14. Transport Information

UN Number	: Not regulated
UN Proper shipping name	: Not regulated
UN Classification	: Not regulated
Packing Group	: Not regulated
Mark/Label(s)	: Not regulated
Marine pollutant (Yes/No)	: No
Additional information	:

The materials transportation by vehicles, the sender serves deliverers with instructions for safe handling. In transportation confirm leakless of the container, and load the materials not to upset, fall and damage. Secure preventing the load from falling.

15. Regulatory Information

Nothing

16. Other Information

References :

- 1) The Sigma-Aldrich Library of Chemical Safety Data Edition II; Robert E. Lenga.
- 2) "The Handbook of Prevention for Dangerous Substances Accident and Emergencies"
KOBKAINAN BOSHIKENKYUKAI published by SEIZANDO (Japanese)
- 3) "Encyclopedia Chimica (KAGAKU DAIJITEN)"
KYORITSU SHUPPAN (Japanese)
- 4) "Lactic Acid"; C.H.Holten, Verlag Chemie
- 5) International Chemical safety Cards(ICSC) (Japanese version) 4th
The Chemical Daily Co., Ltd.
- 6) Unpublished data (for Company use :Japanese)
- 7) WHO Food Additive Series. No.5 (1974)
- 8) JJMT(HEN'IGEN TO DOKUSEI) 5(6)579-587(1982) (Japanese)
- 9) TSUSANSHO KOHO 1993.12.28 (Japanese)

Disclaimer :

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.