

## Safety Data Sheet

Date of revision: 2021/02/26

## 1. Product and company identification

Product name	D-Valine
Name of manufacturer	Yoneyama Yakuhin Kogyo Co., Ltd.
Address	2-3-11 Doshomachi, Chuo-ku, Osaka, 541-0045, Japan
Contact for Information	Sales Division
Telephone number	06-6231-3555
Fax number	06-6223-1093
SDS No.	29601

## 2. Hazards identification

GHS Classification	Does not meet the classification criteria.
GHS Label Elements	
Symbol	—
Signal word	—
Hazard statement	—

## 3. Composition/information on ingredients

Substance/Mixture	Substance
Chemical name or commercial name	D-Valine
Synonyms	—
Chemical formula	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>
Numerical identifier	CAS RN: 640-68-6
Ingredients and composition	100%

## 4. First aid measures

INHALATION	Move the exposed person to fresh air at once. Keep the affected person warm and at rest.
SKIN CONTACT	Rinse immediately contaminated clothing and skin with plenty of water before removing clothing. If skin irritation occurs: Get medical advice/attention.
EYE CONTACT	Remove contact lenses, if present and easy to do. Continue rinsing.
INGESTION	Rinse mouth.

## 5. Fire fighting measures

Suitable extinguishing media	spray water, alcohol-resistant foam, powder, carbon dioxide
Unsuitable extinguishing media	No data
Specific hazards arising from chemical	No data
Particular fire fighting	No data
Special protective actions for fire-fighters	Firefighting should be done upwind and avoid inhalation of toxic fumes. depending on the risk, wear appropriate protective equipment.

## 6. Accidental release measure

Personal precaution, protective equipment and emergency procedures	Wear appropriate protective equipment and work from upwind to evacuate people downwind. Wear protective clothing, respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
Environmental precautions	Be careful not to discharge it into rivers, etc. and cause environmental impact.
Removal measure	Store the vessels in a well-ventilated location. Entrust them to the appropriate authorities for disposal. No data

## 7. Handling and storage

Handling	
Technical measures	Prevents leakage, overflow, and scattering, and does not generate dust unnecessarily.
Precautions for safe handling	Do not handle the container by tumbling it, dropping it, giving it an impact, or dragging it.
Incompatible materials	Provision of very good ventilation in the working area.
Hygiene measures	Rinse and then wash skin with water and soap.
Storage	
Conditions for safe storage	Handle with care, avoiding high temperature and humidity. Be careful of the storage environment as it is hygroscopic.
Packaging compatibilities	polyethylene, polypropylene

## 8.Exposure controls/personal protection

Exposure limits	—
ACGIH	—
Equipment measures	Provision of very good ventilation in the working area. Washing facility at the workplace required.
Protective equipment	
Respiratory protection	Air – supplied or self – contained NIOSH approved breathing apparatus.
Hand protection	Impervious protective gloves.
Eye protection	Safety goggles.
Skin protection	Protective clothing, protective boots.

## 9.Physical and chemical properties

Physical state	crystal powder
Appearance	white
Odor	odorless~slightly unique odor
Melting point/Freezing point	315°C
Boiling point	No data
Combustible	No data
Upper/lower explosive limits	No data
Flash point	No data
Auto-ignition temperature	No data
Decomposition temperature	No data
pH	No data
Viscosity	No data
Solubility	8.34g/100g(0°C, water), 8.85g/100g(25°C, water), 9.62g/100g(50°C, water), 10.24g/100mL(65°C, water)
Partition coefficient: n-octanol/water	No data
Vapor pressure	No data
Specific gravity	No data
Vapor density	No data
Relative evaporation rate	No data

## 10.Stability and reactivity

Reactivity	No data
Chemical stability	Stable under normal handling.
Possibility of hazardous reaction	No data
Condition to avoid	sunlight, high temperature, high humidity
Incompatible materials	strong oxidizing substances
Hazardous decomposition products	nitrogen oxides, carbon monoxide

## 11.Toxicological information

Acute toxicity	No data
Skin corrosion/irritation	No data
Eye damage/irritation	No data
Respiratory sensitization and Skin sensitization	No data
Germ cell mutagenicity	No data
Carcinogenicity	Not listed (NTP, IARC, OSHA) (Classification not possible)
Reproductive toxicity	No data
Specific target organ toxicity (single exposure)	No data
Specific target organ toxicity(repeated exposure)	No data
Aspiration hazard	No data

## 12.Ecological information

Hazardous to the aquatic environment	No data
Persistence and degradability	No data
Bioaccumulative potential	No data
Mobility in soil	No data
Hazardous to the ozone layer	Not enumerated in Montreal Protocol on Substances that Deplete the Oz

## 13.Disposal considerations

Residual disposal	If there is no way of recycling it must be disposed of in compliance with the respective national and local regulation. It consigns it to the industrial waste disposal trader who has permission.
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## 14.Transport information

UN Number	—
UN proper shipping name	—

Transport hazard class	—
Packing group	—
Additional identification	Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure that the container valve is closed and not leaking. Prevent the product containers from falling over or falling.
15.Regulatory information	Please apply to the regulatory control in each country.
16.Other information	
References	National Institute of Technology and Evaluation(NITE) Hazardous Substances Data Bank(HSDS)
Attention	The Safety Data Sheet (SDS) is prepared based on JIS Z7253. All information contained herein is given in good faith and no warranty expressed or implied is made to its accuracy. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations and determine whether they are appropriate.