Chemical Safety Data Sheet MSDS / SDS

D(-)-Arginine

Revision Date:2025-07-19 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

| Product name | : D(-)-Arginine | | | | |
|---|--|--|--|--|--|
| CBnumber | : CB2408147 | | | | |
| CAS | : 157-06-2 | | | | |
| EINECS Number | : 205-866-5 | | | | |
| Synonyms | : D-arginine,D-arg | | | | |
| Relevant identified uses of the substance or mixture and uses advised against | | | | | |
| | | | | | |
| Relevant identified uses | : For R&D use only. Not for medicinal, household or other use. | | | | |
| Relevant identified uses Uses advised against | : For R&D use only. Not for medicinal, household or other use. : none | | | | |
| | | | | | |
| Uses advised against | | | | | |

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Telephone

: 010-86108875

Signal word

Warning

Precautionary statements

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P337+P313 IF eye irritation persists: Get medical advice/attention.

Hazard statements

H319 Causes serious eye irritation

SECTION 3: Composition/information on ingredients

1

Substance

| Product name | : D(-)-Arginine |
|--------------|--------------------|
| Synonyms | : D-arginine,D-arg |
| CAS | : 157-06-2 |
| EC number | : 205-866-5 |
| MF | : C6H14N4O2 |
| MW | : 174.2 |
| MF | : C6H14N4O2 |

SECTION 4: First aid measures

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

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx) Combustible.

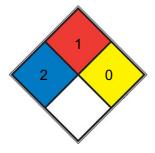
Advice for firefighters

No data available

Further information

No data available

NFPA 704





Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. <u>diethyl</u> <u>ether</u>, ammonium phosphate, iodine)

| FIRE | 1 | Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia) |
|-------|---|--|
| | | Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, N2) |
| SPEC. | | |
| HAZ. | | |

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

Environmental precautions

No data available

Methods and materials for containment and cleaning up

No data available

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

No data available

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

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

| Melting point/freezing pointMelting point/range: 226 °C - dec.Initial boiling point and boiling range305.18°C (rough estimate)Flash pointNot applicableEvaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availablelimitsVapour pressureVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableDecomposition temperatureNo data available | Appearance | white powder |
|--|---|------------------------------------|
| pHNo data availableMelting point/freezing pointMelting point/range: 226 °C - dec.Initial boiling point and boiling range305.18°C (rough estimate)Flash pointNot applicableEvaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availableImitisNo data availableVapour pressureNo data availableVapour densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableDecomposition temperatureNo data availableViscosityNo data available | Odour | No data available |
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| Flash pointNot applicableEvaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availablelimitsVapour pressureVapour pressureNo data availableVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableViscosityNo data available | Melting point/freezing point | Melting point/range: 226 °C - dec. |
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| Flammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availablelimitsVapour pressureNo data availableVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableDecomposition temperatureNo data availableViscosityNo data available | Flash point | Not applicable |
| Upper/lower flammability or explosiveNo data availablelimitsVapour pressureNo data availableVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableDecomposition temperatureNo data availableViscosityNo data available | Evaporation rate | No data available |
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| Water solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableDecomposition temperatureNo data availableViscosityNo data available | Vapour density | No data available |
| Partition coefficient: n-octanol/water No data available Autoignition temperature No data available Decomposition temperature No data available Viscosity No data available | Relative density | No data available |
| Autoignition temperature No data available Decomposition temperature No data available Viscosity No data available | Water solubility | No data available |
| Decomposition temperature No data available Viscosity No data available | Partition coefficient: n-octanol/water | No data available |
| Viscosity No data available | Autoignition temperature | No data available |
| · | Decomposition temperature | No data available |
| Explosive properties No data available | Viscosity | No data available |
| | Explosive properties | No data available |
| Oxidizing properties No data available | Oxidizing properties | No data available |

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

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

SECTION 11: Toxicological information

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

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

No data available

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

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

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

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

Special precautions for user

No data available

SECTION 15: Regulatory information

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

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/ United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/ Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/ Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr New Zealand Inventory of Chemicals (NZIoC):Not Listed. website: https://www.epa.govt.nz/ Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/ Vietnam National Chemical Inventory:Not Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

- CAS: Chemical Abstracts Service
- EC50: Effective Concentration 50%
- IATA: International Air Transportation Association
- IMDG: International Maritime Dangerous Goods
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- STEL: Short term exposure limit
- TWA: Time Weighted Average

References

- [1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- [2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [3] ECHA European Chemicals Agency, website: https://echa.europa.eu/
- [4] eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:
- http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- [5] ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- [7] HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- [8] IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- [9] IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- [10] Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:

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