SAFETY DATA SHEETS According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Aug 11, 2017

Revision Date: Aug 11, 2017

1.Identification1.1GHS Product identifier

Product name 2-(Ethoxycarbonyl) vinylboronic acid pinacol ester

1.20ther means of identification

Product number -

Other names 4-ethoxycarbonyloxy-3-methoxy-cinnamic acid

1.3Recommended use of the chemical and restrictions on use

Identified uses For industry use only.

Uses advised against no data available

1.4Supplier's details

Company ALLYCHEM CO., LTD., DALIAN, CHINA

Address No. 5 of Jinbin Road, Jinzhou New District, Dalian City,

Liaoning Province, P.R.China

Telephone 86-411-87549848 Fax 86-411-87549748

1.5Emergency phone number

Emergency phone number 86-411-87549848

Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8

hours).

2.Hazard identification2.1Classification of the substance or mixture

Acute toxicity - Oral, Category 4

Acute toxicity - Dermal, Category 4

Skin irritation, Category 2

Eye irritation, Category 2

Acute toxicity - Inhalation, Category 4

Specific target organ toxicity – single exposure, Category 3

2.2GHS label elements, including precautionary statements

Pictogram(s)



Signal word Warning

Hazard statement(s) H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H335 May cause respiratory irritation

Precautionary
statement(s)

Prevention P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

Response P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/...if you

feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P312 Call a POISON CENTER/doctor/...if you feel unwell.

P321 Specific treatment (see ... on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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

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

P304+P340 IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

Storage P403+P233 Store in a well-ventilated place. Keep container tightly

closed.

P405 Store locked up.

Disposal P501 Dispose of contents/container to ...

2.30ther hazards which do not result in classification

none

3. Composition/information on ingredients 3.1 Substances

Chemical name		CAS number	number	Concentration
2-(Ethoxycarbonyl)vinylboronic acid pinacol ester	2-(Ethoxycarbonyl)vinylboronic acid pinacol ester	1009307-13-4	none	100%

^{4.}First-aid measures4.1Description of necessary first-aid measuresGeneral 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.

4.2Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

5.Fire-fighting measures 5.1 Extinguishing media Suitable extinguishing media

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

5.2Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6.Accidental release measures6.1Personal 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.

6.2Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2Conditions for safe storage, including any incompatibilities

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

8. Exposure controls/personal protection8.1 Control parameters Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state no data available Colour no data available 0dour no data available Melting point/ freezing no data available point Boiling point or initialno data available boiling point and boiling range Flammability no data available Lower and upper explosion no data available limit / flammability limit Flash point no data available Auto-ignition no data available temperature

Decomposition no data available temperature

n-octanol/water (log

value)

Vapour pressure no data available Density and/or relative no data available density

Relative vapour density no data available Particle characteristics no data available

10. Stability and reactivity 10.1 Reactivity

no data available

10.2Chemical stability

Stable under recommended storage conditions.

10.3Possibility of hazardous reactions

no data available

10.4Conditions to avoid

no data available

10.5Incompatible materials

no data available

10.6Hazardous decomposition products

no data available

11. Toxicological information Acute toxicity

• Oral: no data available

• Inhalation: no data available

• Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12.Ecological information12.1Toxicity

• Toxicity to fish: no data available

- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available
 - 12.2Persistence and degradability

no data available

12.3Bioaccumulative potential

no data available

12.4Mobility in soil

no data available

12.50ther adverse effects

no data available

13.Disposal considerations 13.1Disposal methods Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information 14.1UN Number

ADR/RID: no data available IMDG: no data available IATA: no data available

14.2UN Proper Shipping Name

ADR/RID: no data available IMDG: no data available IATA: no data available

14.3Transport hazard class(es)

ADR/RID: no data available IMDG: no data available IATA: no data available

14.4Packing group, if applicable

ADR/RID: no data available IMDG: no data available IATA: no data available

14.5Environmental hazards

ADR/RID: no IMDG: no IATA: no

14.6Special precautions for user

no data available

14.7Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15.Regulatory information 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number	
2-(Ethoxycarbonyl)vinylboronic acid pinacol ester	2-(Ethoxycarbonyl)vinylboronic acid pinacol ester	1009307-13-4	none	
European Inventory of Existing Commercial Chemical Substances (EINECS)				
EC Inventory			Not Listed.	
United States Toxic Substances Control Act (TSCA) Inventory				
China Catalog of Hazardous chemicals 2015				
New Zealand Inventory of Chemicals (NZIoC)				
Philippines Inventory of Chemi	cals and Chemical Substances ((PICCS)	Not Listed.	

Vietnam National	Chemical Inventory	Not Listed.
Chinese Chemical	Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

16.Other informationInformation on revision

Creation Date Aug 11, 2017 Revision Date Aug 11, 2017

Abbreviations and acronyms

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

References

- IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- $\bullet \quad \text{ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp} \\$
- ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- ECHA European Chemicals Agency, website: https://echa.europa.eu/

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.