Shanghai Aladdin Biochemical Technology Co., Ltd. No. 809, Chuhua Branch Road, Fengxian District, Shanghai

SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-25 Print Date: 2024-02-02

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

1.1 Product identifiers

| Product name | : 1,1,1-Tris(diphenylphosphino-methyl)ethane |
|----------------|--|
| Product Number | : T129121 |
| Brand | : aladdin |
| CAS-No. | : 22031-12-5 |

1.2 Relevant identified uses of the substance or mixture and uses advised against

: Laboratory chemicals, Manufacture of substances.

Identified uses

1.3 Details of the supplier of the safety data sheet

| Company | : Shanghai Aladdin Biochemical Tech Co.,Ltd |
|-----------|---|
| Address | : 36 Xinjinqiao Road, Shanghai |
| Telephone | : 400-620-6333 |
| Fax | : no data available |
| | |

1.4 Emergency telephone number

| Emergency Phone | : 0532-83889090 |
|-----------------|-----------------|
|-----------------|-----------------|

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.2 GHS Label elements, including precautionary statements

Pictogram

| | \mathbf{v} |
|----------------------------|--|
| Signal word | Warning |
| Hazard statement(s) | |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| Precautionary statement(s) | |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash hands [and] thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: wash with plenty of water. |

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Concentration

97%

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| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
|----------------|---|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact |
| | lenses if present and easy to do - continue rinsing. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P405 | Store locked up. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P501 | Dispose of contents/container to an approved waste disposal plant. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

| Synonyms | : Triphos; Phenyl triphos; 1,3-Bis(diphenylphosphino)-2- | |
|---|--|--|
| (diphenylphosphino)methyl-2-methylpropane;1,3-Bis(diphenylphosphino)-2-(diphenylphosphino)methyl-2- | | |
| methylpropane;Phenyl triphos | | |
| Formula | : C41H39P3 | |
| Molecular weight | : 624.67 | |
| CAS No. | : 22031-12-5 | |
| EC-NO. | : no data available | |
| | | |

Component

Classification

1,1,1-Tris(diphenylphosphinomethyl)ethane

no data available

SECTION 4: First aid measures

4.1 Description of first aid measures

| General advice | |
|---|--|
| no data available | |
| If inhaled | |
| If breathed in, move person into fresh air. If not breathing, give artificial respiration | |
| In case of skin contact | |
| Wash off with soap and plenty of water. | |
| In case of eye contact | |
| Flush eyes with water as a precaution. | |
| If swallowed | |
| Never give anything by mouth to an unconscious person. Rinse mouth with water. | |
| No | |

4.2 Most important symptoms and effects, both acute and delayed

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no data available

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. Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.- Carbon oxides, Oxides of phosphorus

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.
Air sensitive.

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7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls General industrial hygiene practice.

Personal protective equipment

Eye/face protection

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 contaminated gloves after use in
accordance with applicable laws and good laboratory practices.Wash and dry hands.
br/>Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the
specific work-place., The type of protective equipment must be selected according to the concentration and amount
of the dangerous substance at the specific workplace.
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br/>

Respiratory protection

Respiratory protection is not required.Where protection from nuisance levels of dusts are desired, use type N95
br/>(US) or type P1 (EN 143) dust masks.Use respirators and components tested and approved under appropriate
br/>government standards such as NIOSH (US) or CEN (EU).
br/>

Control of environmental exposure

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| a) Appearance | no data available |
|--|-------------------|
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | no data available |
| f) Initial boiling point and boiling range | no data available |
| g) Flash point | no data available |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |

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| j) Upper/lower flammability or | |
|---|---------------------|
| explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | no data available |
| n) Water solubility | no data available |
| o) Partition coefficient: n-octanol/water | r no data available |
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties N | no data available |
| t) Oxidizing properties N | no data available |

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

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.- Carbon oxides, Oxides of phosphorus

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity no data available Skin corrosion/irritation no data available

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> 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 asprobable, possible or confirmed human carcinogen by IARC.ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as acarcinogen or potential carcinogen by ACGIH.NTP: No component of this product present at levels greater than or equal to 0.1% is identified as aknown or anticipated carcinogen by NTP.OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as acarcinogen or potential carcinogen by OSHA. 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 no data 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

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

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SECTION 13:

13.1 Disposal considerations

Product Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging no data available

SECTION 14: Transport information

| DOT (US) | | |
|--|---|---|
| UN number: no data available | Packing group: - | Class: - |
| Proper shipping name: Not dangerous goods | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: No | | |
| IMDG | | |
| UN number: no data available | Packing group: - | EMS-No: no data available |
| Proper shipping name: Not dangerous goods | | |
| ΙΑΤΑ | | |
| UN number: no data available | Packing group: - | Class: - |
| Proper shipping name: Not dangerous | goods | |

SECTION 15: Regulatory information

no data available

SECTION 16: Other information

Further information

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