





## PK900

| 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION   |  |
|--|--|
| Manufacturer<br>Shandong Yanggu Huatai Chemical Co., LTD<br>No.217, Qinghexi Road<br>Yanggu County, Shandong, China 252300 | Emergency Contact<br>Chemtrec: 1-800-424-9300 (USA)<br>(1)330-542-8400 (outside USA) |
| Trade Name(s): PK 900  | Chemical Name: 1,3-Bis(3-methyl-s,5-dioxo-1H-pyrrolinylmethyl)benzene                |
| Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.  | Application of the substance/the preparation: Anti-reversion agent.                  |
| Issued By: Sovereign Chemical Company  | Date of Issue: August 18, 2020   |
| According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS   |  |





## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

|   |   |  |
|---|---|--|
|  | GHS08 Health hazard<br>STOT RE 2                          | H373 May cause damage to organs through prolonged or repeated exposure.                        |
|  | GHS05 Corrosion<br>Eye Dam. 1                             | H318 Causes serious eye damage.  |
|  | GHS09 Environment<br>Aquatic Acute 1<br>Aquatic Chronic 1 | H400 Very toxic to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects. |
|  | GHS07<br>Skin Sens. 1<br>STOT SE 3                        | H317 May cause an allergic skin reaction.<br>H335 May cause respiratory irritation.            |

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

|   |  |
|---|--|
|  | Xn; Harmful<br>R48/22: Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure if                |
|  | Xi; Irritant<br>R41: Risk of serious damage to eyes.   |
|  | Xi; Sensitizing<br>R43: May cause sensitization by skin contact.   |
|  | N; Dangerous for the environment,<br>R50/53: Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic |

### 2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

Hazard pictograms



GHS05



GHS07



GHS08



GHS09

Signal word: **Danger**

Hazard-determining components of labeling: ziram (ISO)

Hazard statements

- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.


Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P264 Wash thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P314 Get medical advice/attention if you feel unwell.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Dangerous components

|                                       |  |          |
|---------------------------------------|--|----------|
| CAS: 119462-56-5<br>EC No: 412-570-1  | 1,3-Bis(3-methyl-s,5-dioxo-1H-pyrrolinylmethyl)benzene<br> | ≥85.0%   |
| CAS: 2170-03-8<br>EC No: 218-518-2    | 2-Methylenesuccinicanhydride   | 1.9-2.5% |
| CAS: 498-23-7<br>EC No: 207-858-7     | Citraconic Acid  | ≤ 0.1%   |
| CAS No: 1477-55-0<br>EC No: 216-032-5 | 1,3-Benzenedimethanamine   | ≤ 0.1%   |

### 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information

Immediately remove any clothing soiled by the product.

After inhalation

Remove from exposure and move to fresh air immediately.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Do not induce vomiting; call for medical help immediately.

Never give anything by mouth to an unconscious person.

Get medical aid immediately.

4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

Causes serious eye damage.

May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention.

## 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents

Use extinguishing agents appropriate for surrounding materials.

For safety reasons unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture: During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters

Protective equipment

Wear self-contained respiratory protective device.

Wear fully protective suit.

## 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Avoid dust formation.

Avoid breathing vapors/mist/gas.

Ensure adequate ventilation

6.2 Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

### 6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not ingest.

Do not breathe dust.

Wear suitable protective clothing.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of dust.

Do not eat, drink and smoke in work areas.

Wash hands after use.

Remove contaminated clothing and protective equipment before entering eating areas.

Information about fire and explosion protection: Keep respiratory protective device available.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

Requirements to be met by storerooms and receptacles

Provide ventilation for receptacles.

Store in a cool location.

Information about storage in one common storage facility

Store away from foodstuffs.

Further information about storage conditions

Store in cool, dry conditions in well-sealed receptacles.

Store receptacle in a well-ventilated area.

Keep container tightly sealed

### 7.3 Specific end use(s): No further relevant information available.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see section 7.

### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

DNELs: No further relevant information available.

PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

### 8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Do not inhale gases / fumes / aerosols.  
 Avoid contact with the eyes and skin.  
 Respiratory protection



Dust protection mask if there is a risk of dust formation.

Protection of hands



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection



Safety glasses

Body protection: Wear normal working clothing.

Limitation and supervision of exposure into the environment: No further relevant information available.

Risk management measures

See Section 7 for additional information.

No further relevant information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

|   |  |
|---|--|
| Appearance<br>Form: Powder.<br>Color: Off-white.                          | Change in Condition<br>Melting Point/Melting Range: Undetermined.<br>Boiling Point/Boiling Range: > 280° C |
| Odor: Not available.  | Octanol/Water Partition Coefficient: log Pow = 2.22  |
| Odor threshold: Not determined.   | pH Value: Not applicable.  |
| Vapor pressure: 5 x 10 <sup>-8</sup> kPa at 25 ° C                        | Flash point: 257° C (closed cup)   |
| Density at 20 °C: 1.66 g/cm <sup>3</sup> .                                | Flammability (solid, gaseous): Non-flammable.  |
| Relative density: 1.269.  | Ignition temperature: Not self-igniting prior to melting.  |
| Vapor density: Not applicable.  | Decomposition temperature: Not determined.   |
| Evaporation rate: Not applicable.   | Self-igniting: Not determined.   |
| Solubility in / Miscibility with water: 40.8 mg.L <sup>-1</sup> at 20° C. | Danger of explosion: Product does not present an explosion hazard.   |

|   |  |
|---|--|
| Viscosity<br>Dynamic: Not applicable.<br>Kinematic: Not applicable. | Explosion limits<br>Lower: Not determined.<br>Upper: Not determined. |
|---|--|

9.2 Other information: No further relevant information available.

**10. STABILITY AND REACTIVITY**

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition/conditions to be avoided: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

- Incompatible materials.
- Dust generation
- Exposure to air
- Excess to heat

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products

- Carbon monoxide and carbon dioxide.
- Nitrogen oxides

**11. TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity

| LD/LC50 values relevant for classification                          |      |                      |
|---|------|----------------------|
| 119462-56-5, 1,3-Bis(3-methyl-s,5-dioxo-1H-pyrrolinylmethyl)benzene |      |                      |
| Oral  | LD50 | >2000 mg/kg (rat)    |
| Dermal  |      | >2000 mg/kg (rabbit) |
| Inhalative  | LC50 | Not available.       |

Primary irritant effect

- On the skin: Not classified.
- On the eye: Causes serious eye damage.

Sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

STOT – single exposure: Not classified.

STOT – repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Not classified.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

| Acute toxicity |                         | Time | Species | Method   | Evaluation | Remarks |
|----------------|-------------------------|------|---------|----------|------------|---------|
| LC50           | 0.17 mg.L <sup>-1</sup> | 96h  | Fish    | OECD 203 | N/A        | N/A     |
| EC50           | 2.06 mg.L <sup>-1</sup> | 48h  | Daphnia | OECD 202 | N/A        | N/A     |
| EC50           | N/A                     | 72h  | Algae   | OECD 201 | N/A        | N/A     |

12.2 Persistence and degradability: No further relevant information available.

12.3 Bio-accumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

### 12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Recommendation

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Un-cleaned packaging

Recommendation: Disposal must be made according to official regulations.

## 14. TRANSPORTATION INFORMATION

### 14.1 UN-Number

DOT, ADR, IMDG, IATA UN3077

### 14.2 UN proper shipping name

|      |   |
|------|---|
| DOT  | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (1,3-bis(3-methyl-2,5-dioxo-1H-pyrrolinylmethyl)benzene)                  |
| ADR  | 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-bis(3-methyl-2,5-dioxo-1H-pyrrolinylmethyl)benzene)             |
| IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-bis(3-methyl-2,5-dioxo-1H-pyrrolinylmethyl)benzene), MARINE POLLUTANT |
| IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-bis(3-methyl-2,5-dioxo-1H-pyrrolinylmethyl)benzene)                   |

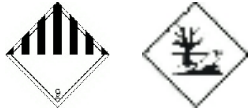
### 14.3 Transport hazard class(es)

DOT, IMDG, IATA



Class: 9 Miscellaneous dangerous substances and articles.  
Label: 9

ADR



Class: 9 (M7) Miscellaneous dangerous substances and articles.  
Label: 9

14.4 Packing group  
DOT, ADR, IMDG, IATA

III

**15. REGULATORY INFORMATION**

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

|   |                      |
|---|----------------------|
| United States (USA)                                 |                      |
| SARA Section 313 (Specific toxic chemical listings) | acetamide            |
| TSCA (Toxic Substances Control Act)                 | Substance is listed. |

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**16. OTHER INFORMATION**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent