



# ChemWhat®

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

“ChemWhat” has been acquired by Watson and is now acting as a sub-brand under Watson International Ltd  
www.watson-int.com

**For Reagent:** www.chemwhat.com  
Revision Date 2019.10.05

## 1. Product identifier

Product Name: H-D-Glu(OtBu)-OtBu.HCl  
CAS: 172793-31-6  
Brand: Chemwhat  
Product Number: 88890

## Recommended use of the chemical and restrictions on use

For research use only. Not intended for diagnostic or therapeutic use.

## Details of the supplier of the safety data sheet

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## 2. HAZARDS IDENTIFICATION

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

### Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

### Label elements

Signal word Not classified  
Hazard statements Not classified  
Symbols/Pictograms Not classified  
Precautionary Statements - Prevention Wash hands thoroughly after handling  
Precautionary Statements - Response IF exposed or concerned: Get medical advice/attention

### Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC) Not applicable

### Other Information

Unknown acute toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity.

### NFPA

Health hazards -  
Flammability -  
Stability -  
Physical and chemical properties -



### HMIS

Health hazards -  
Flammability -  
Physical hazards -  
Personal protection -

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 172793-31-6  
Molecular Weight 295.8  
Formula C<sub>13</sub>H<sub>25</sub>NO<sub>4</sub>·HCl

| Chemical Name | CAS No | Weight % | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|--------|----------|-----------|-------------|-----------------|
|---------------|--------|----------|-----------|-------------|-----------------|

|   |             |     |   |   |   |
|---|-------------|-----|---|---|---|
| D-Glutamic acid di-tert-butyl ester hydrochloride | 172793-31-6 | >98 | - | - | - |
|---|-------------|-----|---|---|---|

## 4. FIRST AID MEASURES

### First Aid Measures

|                |  |
|----------------|--|
| General advice | Consult a physician if necessary. Remove to fresh air.   |
| Eye contact    | Wash with plenty of water.   |
| Skin Contact   | Wash skin with soap and water.   |
| Inhalation     | Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration |
| Ingestion      | Never give anything by mouth to an unconscious person. Clean mouth with water.                           |

### Most important symptoms and effects, both acute and delayed

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

### Indication of any immediate medical attention and special treatment needed

|                    |                        |
|--------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|--------------------|------------------------|

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

|                                |   |
|--------------------------------|---|
| Suitable Extinguishing Media   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable Extinguishing Media | None.   |

### Specific hazards arising from the chemical

|  |                                       |
|--|---------------------------------------|
| Specific hazards arising from the chemical | No information available.             |
| Hazardous combustion products              | Carbon oxides. Nitrogen oxides (NOx). |

### Explosion data

|                                  |                           |
|----------------------------------|---------------------------|
| Sensitivity to Mechanical Impact | No information available. |
| Sensitivity to Static Discharge  | No information available. |

### Protective equipment and precautions for firefighters

|   |  |
|---|--|
| Protective equipment and precautions for firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |
|---|--|

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

|                      |  |
|----------------------|--|
| Personal precautions | Ensure adequate ventilation, especially in confined areas. |
|----------------------|--|

### Environmental precautions

|                           |   |
|---------------------------|---|
| Environmental precautions | See Section 12 for additional Ecological Information. |
|---------------------------|---|

### Methods and material for containment and cleaning up

|                         |   |
|-------------------------|---|
| Methods for containment | Prevent further leakage or spillage if safe to do so.   |
| Methods for cleaning up | Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. |

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store at 4 °C.  
Incompatible materials None known based on information supplied.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls

Engineering Controls Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).  
Skin and Body Protection Wear protective gloves and protective clothing.  
Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.  
General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Physical State

Appearance White to off-white  
Odor No information available

### Property

| <u>Property</u>              | <u>Values</u>            |
|------------------------------|--------------------------|
| pH                           | No information available |
| Melting point/freezing point | 90~120°C                 |
| Boiling point                | No information available |
| Flash point                  | No information available |
| Density                      | No information available |
| Evaporation rate             | No information available |
| Upper flammability limits    | No information available |
| Lower flammability limit     | No information available |
| Vapor pressure               | No information available |
| Vapor density                | No information available |
| Specific gravity             | No information available |
| Water solubility             | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient        | No information available |
| Autoignition temperature     | No information available |
| Decomposition temperature    | No information available |
| Kinematic viscosity          | No information available |
| Explosive properties         | No information available |

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|                      |                          |
|----------------------|--------------------------|
| Oxidizing properties | No information available |
|----------------------|--------------------------|

## 10. STABILITY AND REACTIVITY

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|                                    |  |
|------------------------------------|--|
| Reactivity                         | Not applicable                               |
| Chemical stability                 | Stable under recommended storage conditions. |
| Possibility of Hazardous Reactions | None under normal processing.                |
| Hazardous polymerization           | No information available.                    |
| Conditions to avoid                | Extremes of temperature and direct sunlight. |
| Incompatible materials             | Strong oxidizing agents.                     |
| Hazardous Decomposition Products   | Carbon oxides. Nitrogen oxides (NOx).        |

## 11. TOXICOLOGICAL INFORMATION

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### Information on likely routes of exposure

|              |                    |
|--------------|--------------------|
| Inhalation   | No data available. |
| Eye contact  | No data available. |
| Skin Contact | No data available. |
| Ingestion    | No data available. |

### Information on toxicological effects

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                  |                           |
|------------------|---------------------------|
| Chronic Toxicity | No information available. |
|------------------|---------------------------|

### Numerical measures of toxicity - Product Information

|                        |   |
|------------------------|---|
| Unknown acute toxicity | 100% of the mixture consists of ingredient(s) of unknown toxicity |
|------------------------|---|

## 12. ECOLOGICAL INFORMATION

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|             |  |
|-------------|--|
| Ecotoxicity | May cause long lasting harmful effects to aquatic life |
|-------------|--|

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

|                               |                           |
|-------------------------------|---------------------------|
| Persistence and degradability | No information available. |
| Bioaccumulation               | No information available. |
| Mobility                      | No information available. |

## 13. DISPOSAL CONSIDERATIONS

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|                        |   |
|------------------------|---|
| Disposal of wastes     | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Do not reuse container.   |

## 14. TRANSPORT INFORMATION

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|             |               |
|-------------|---------------|
| <b>DOT</b>  | Not regulated |
| <b>IMDG</b> | Not regulated |
| <b>IATA</b> | Not regulated |

## 15. REGULATORY INFORMATION

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### **International Inventories**

All of the components in the product are on the following Inventory lists

No information available

*X - Listed*

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

*DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*

*EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

*ENCS - Japan Existing and New Chemical Substances*

*IECSC - China Inventory of Existing Chemical Substances*

*KECL - Korean Existing and Evaluated Chemical Substances*

*PICCS - Philippines Inventory of Chemicals and Chemical Substances*

### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### **SARA 311/312 Hazard Categories**

|                                   |    |
|-----------------------------------|----|
| Acute health hazard               | No |
| Chronic Health Hazard             | No |
| Fire hazard                       | No |
| Sudden release of pressure hazard | No |
| Reactive hazard                   | No |

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### **U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations

## 16. OTHER INFORMATION

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|               |                          |
|---------------|--------------------------|
| Revision note | No information available |
|---------------|--------------------------|

### **Further information**

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