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

1.1 Product identifier: Glutethimide Standard
Stock Number: 34058

Other means of identification:
Synonyms: None Known
REACH Registration No.: None Known
Molecular formula: CH3OH

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Relevant identified uses: For Laboratory use only
Uses advised against: Uses other than recommended use.

1.3 Details of the Supplier of the Safety Data Sheet:
Manufacturer: Restek Corporation
110 Benner Circle
Bellefonte, Pa. 16823
USA
00 1 814-353-1300
00 1 814-353-1309
sds@restek.com

Supplier: Thames Restek UK LTD
Units 8-16, Ministry Wharf
Wycombe Road, Saunderton
Buckinghamshire
United Kingdom HP14 4HW
01494 563377
sales@thamesrestek.co.uk

1.4 Emergency telephone number:
00 1 800-424-9300
(CHEMTREC within the US)

00 1 703-741-5970
(Outside USA)

0870-8200418
(CHEMTREC within the UK)

+1 703-741-5970
(CHEMTREC International)

Poison Centre contact information:
National Poisons Information Service (NPIS)
Email: director.birmingham.unit@npis.org
Website: http://www.npis.org/

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008 [CLP]:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Glutethimide Standard

Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008 [CLP]:

Signal Word: Danger

Hazard pictograms:

Hazard Statements: H225 - Highly flammable liquid and vapour
                  H301+H311 - Toxic if swallowed or in contact with skin
                  H370 - Causes damage to organs

Precautionary Statements: P210 - Keep away from heat, hot surfaces, sparks, open flames and other
                           ignition sources. No smoking.
                           P233 - Keep container tightly closed.
                           P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
                           P280 - Wear protective gloves/protective clothing/eye protection/face
                          protection.
                           P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
                           P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all
                          contaminated clothing. Rinse skin with water/shower.

Supplemental Hazard information (EU): None Known

2.3 Other hazards: This substance does not meet the PBT or vPvB criteria of REACH, Annex XIII
Glutethimide Standard

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>%</th>
<th>CAS #</th>
<th>EC No.</th>
<th>Classification (EC) No 1272/2008</th>
<th>M Factor</th>
<th>SCL</th>
<th>Acute Toxicity Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>99.9</td>
<td>67-56-1</td>
<td>200-659-6</td>
<td>Acute Tox. 3 (Dermal); H311 Acute Tox. 3 (Inh Dust/Mist); H331 Acute Tox. 3 (Oral); H301 Flam. Liq. 2; H225 STOT SE 1; H370</td>
<td>No data available</td>
<td>STOT SE 2: 3%&lt;10% STOT SE 1: 10%</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

For full text of H-statements see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures:

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

**Eye contact:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

**Self protection of the first aider:** No data available

4.2 Most important symptoms and effects, both acute and delayed:

Coma and death

4.3 Indication of any immediate medical attention and special treatment needed:

IF exposed or concerned: Call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell.

SECTION 5: Firefighting measures

5.1 Extinguishing media:
6.1 Personal precautions, protective equipment and emergency procedures:

Non-emergency personnel: Non-emergency personnel should be kept clear of the area

Emergency responders: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

6.2 Environmental precautions: No data available

6.3 Methods and material for containment and cleaning up:

Small spills: Refer to information provided for large spills

Large spills: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

6.4 Reference to other sections: Refer to section 13 for disposal information
7.1 Precautions for safe handling: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment.

7.2 Conditions for safe storage, including any incompatibilities:

    Conditions for safe storage: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition.

    Materials to Avoid/Chemical Incompatibility: Strong oxidizing agents.

7.3 Specific end use(s): For Laboratory use only.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

Occupational Exposure limit values:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>United Kingdom - Workplace Exposure Limits (WELs) - TWAs</th>
<th>United Kingdom - Workplace Exposure Limits (WELs) - STELs</th>
<th>United Kingdom - Biological Monitoring Guidance Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>200 ppm TWA; 266 mg/m3 TWA</td>
<td>250 ppm STEL; 333 mg/m3 STEL</td>
<td>No data available</td>
</tr>
</tbody>
</table>

DNEL: None Known

PNEC: None Known

8.2 Exposure controls:

Appropriate engineering controls: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Individual protection measures, such as personal protective equipment:

Eye and face protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection:

    Hand protection: No information available

    Other skin protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Respiratory Protection: If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection. Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the
preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Thermal Hazards: Not applicable

Environmental exposure controls: No data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance: No data available

Colour: No data available

Odour: Mild

Odour threshold: No data available

pH: Not applicable

Melting Point/Freezing Point (°C):

   Melting point (°C): No data available

   Freezing point (°C): No data available

Initial boiling point and boiling range (°C): 65

Flash point (°C): 11

Evaporation Rate (water = 1): No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits:

   Upper flammable or explosive limit, % in air: 36

   Lower flammable or explosive limit, % in air: 6

Vapour pressure: No data available

Vapor Density (Air=1): 1.1

Relative density (water = 1): 0.800

Solubility(ies): Moderate; 50-99%

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature (°C): 464
Glutethimide Standard

Decomposition temperature (°C): No data available
Viscosity: No data available
Explosive properties: No data available
Oxidizing properties: No data available

9.2 Other information:
Volatile Organic Chemicals: 0
Bulk density: 6.676

SECTION 10: Stability and reactivity

10.1 Reactivity: Not expected to be reactive
10.2 Chemical stability: Stable under normal conditions.
10.3 Possibility of hazardous reactions: None expected under standard conditions of storage
10.4 Conditions to avoid: No data available
10.5 Incompatible materials: Strong oxidizing agents
10.6 Hazardous decomposition products: Carbon dioxide, Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ORAL LD50 (rat)</th>
<th>DERMAL LD50 (rabbit)</th>
<th>INHALATION LC50 (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>No data available</td>
<td>No data available</td>
<td>INHALATION LC50-8H Rat 22500 ppm</td>
</tr>
</tbody>
</table>

Classification has been based on toxicological information of the components in Section 3.

Skin corrosion/irritation:
Based on available data, the classification criteria are not met.

Serious eye damage/irritation:
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.
Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Classification has been based on toxicological information of the components in Section 3.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

12.1 Toxicity: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.

Ecological Toxicity Data:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Aquatic EC50 Crustacea</th>
<th>Aquatic ERC50 Algae</th>
<th>Aquatic LC50 Fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability: Biodegrades slowly.
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: None Known
12.7 Additional information: No data available

**SECTION 13: Disposal considerations**

13.1 Waste treatment methods:
Disposal methods: Spent or discarded material is a hazardous waste.
Dispose of by incineration following Federal, State, Local, or Provincial
Glutethimide Standard

SECTION 14: Transport information

International carriage of dangerous goods by road (ADR), rail or inland waterways:
14.1 UN number: UN1230
14.2 UN proper shipping name: Methanol
14.3 Transport hazard class(es): 3(6.1)
14.4 Packing group: II

International carriage of dangerous goods by air (IATA):
14.1 UN number: UN1230
14.2 UN proper shipping name: Methanol
14.3 Transport hazard class(es): 3(6.1)
14.4 Packing group: II
14.5 Environmental hazards: No
14.6 Special precautions for user: No data available
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: No data available

SECTION 15: Regulatory information

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EINECS</th>
<th>SVHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Revision Date: 22-06-2018
Glutethimide Standard

Indication of changes: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

Abbreviations and acronyms:
- CAS = Chemical Abstract Service
- DNEL = Derivative No Effect Level
- EC = European Community
- EINECS = European Inventory of Existing Chemical Substances
- MSHA = Mine Safety Health Administration
- NIOSH = National Institute of Occupational Safety & Health
- OEL = Occupational Exposure Limit
- PBT = Persistent, Bioaccumulative, Toxic
- PNEC = Predicted No Effect Concentration
- SCOEL = Scientific Committee on Occupational Exposure Limits
- TLV = Threshold Limit Value
- TWA = Time Weighted Average
- vPvB = Very Persistent, Very Bioaccumulative
- Wt.% = Weight Percent

Key literature references and sources for data:
No data available

Hazard phrase(s) referenced in section 3
- H225 - Highly flammable liquid and vapour
- H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
- H370 - Causes damage to organs

Precautionary Statements:

Prevention:
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- 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.

Response:
- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P302+P352 - If on skin: Wash with plenty of water.
Glutethimide Standard

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P308+P311 - IF exposed or concerned: Call a POISON CENTER/doctor.
P312 - Call a POISON CENTER/doctor if you feel unwell.
P321 - Specific treatment (see Sections 4 to 8 on this SDS and any additional information on this label).
P330 - Rinse mouth.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use an appropriate extinguisher (see section 5) to extinguish.

Storage:
P233 - Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

Disposal:
P501 - Dispose of contents/container to a suitable disposal site in accordance with local/national/international regulations.

Disclaimer of Liability:

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