

Issue Date 02/09/2023

Revision Date 03/02/2023

Version 1

**1. PRODUCT AND COMPANY IDENTIFICATION****Product Identifier**

Product Name Perma-Gran

**Other means of identification**

Product Code 6625

**Recommended use of the chemical and restrictions on use**Recommended use Herbicide  
Uses Advised Against For industrial and institutional use only.**Details of the supplier of the safety data sheet**Company Name Blue Cardinal Chemical, LLC  
3670 Scarlet Oak Blvd.  
St. Louis, MO 63122  
800-325-3312**Emergency telephone number**

Emergency Telephone CHEMTEL 1-800-255-3924

**2. HAZARDS IDENTIFICATION****Classification**

GHS US labeling

Carcinogen

Category 1A H350

**Label elements****Emergency Overview****DANGER****Hazard statements**

May cause cancer.

**Appearance:** Grey granules**Physical state:** Solid**Odor:** Mild odor**Precautionary Statements - Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear eye protection, protective clothing, protective gloves.

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention.

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container to comply with local/regional/national/international regulations.

**Hazards not otherwise classified (HNOC)****Other Information**

- N/A

Unknown Acute Toxicity

N/A

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| CHEMICAL NAME   | CAS NO.    | WEIGHT - % | GHS-US classification          | TRADE SECRET |
|---|------------|------------|--------------------------------|--------------|
| Bromacil  | 314-40-9   | 1.0 - 5.0  | Eye Irrit. 2A, H319            | *            |
| Distillates (petroleum), hydrotreated middle; Gasoil— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C11 through C25 and boiling in the range of approximately; 205°C to 400°C (401 °F to 752 °F).] | 64742-46-7 | 1.0 - 5.0  | Asp. Tox. 1, H304              | *            |
| Crystalline Silica  | 14808-60-7 | 0.05 - 5.0 | Carc. 1A, H350 STOT RE 1, H372 | *            |

\* All hazardous chemicals, as determined by 29 CFR 1910.1200 have been listed. A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation. The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****First aid measures**

|                     |  |
|---------------------|--|
| <b>Skin Contact</b> | Wash with plenty of water/.... Take off contaminated clothing and wash it before reuse.      |
| <b>Eye Contact</b>  | Direct contact with the eyes is likely to be irritating.                                     |
| <b>Inhalation</b>   | Get medical advice/attention. Remove person to fresh air and keep comfortable for breathing. |
| <b>Ingestion</b>    | Rinse mouth with water. Do not induce vomiting.  |

**Most important symptoms and effect, both acute and delayed**

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.<br>Symptoms/effects after inhalation : May cause respiratory irritation.<br>Symptoms/effects after skin contact : Slight irritation.<br>Symptoms/effects after eye contact : Direct contact with the eyes is likely to be irritating.<br>Symptoms/effects after ingestion : No data available. |
|-----------------|--|

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

|                           |                                     |
|---------------------------|-------------------------------------|
| <b>Note to physicians</b> | No additional information available |
|---------------------------|-------------------------------------|

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Water spray. Carbon dioxide. Dry chemical powder.

### Specific hazards arising from the chemical

Reactivity : On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide). If the product is involved in a fire, it can release toxic chlorine gases. Reacts violently with (strong) oxidizers.

### Protective equipment and precautions for firefighters

**Firefighting instructions:** Exercise caution when fighting any chemical fire. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.

**Protection during firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

## 6. ACCIDENTAL RELEASE MEASURES

### General measures

Remove ignition sources. Use special care to avoid static electric charges.

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Protective goggles. Gloves. Protective clothing.

**Emergency procedures** Evacuate unnecessary personnel.

### For emergency responders

**Personal precautions** Equip cleanup crew with proper protection.

**Emergency procedures** Stop leak if safe to do so. Stop release. Ventilate area.

### Environmental precautions

**Environmental precautions** Avoid release to the environment. Prevent entry to sewers and public waters.

### Methods and material for containment and cleaning up

**Methods for containment** Collect spillage.

**Methods for cleaning up** This material and its container must be disposed of in a safe way, and as per local legislation. Take up liquid spill into inert absorbent material, e.g.: sand/earth. Clean contaminated surfaces with a soap solution..

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Advice on Safe Handling**

Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Do not breathe vapours. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Handle and open the container with care. Keep away from sources of ignition - No smoking. Take precautions against electrostatic charges. Obtain special instructions before use. Remove contaminated clothing immediately. Wash thoroughly after handling. Wash contaminated clothing before reuse.

### Conditions for safe storage, including any incompatibilities

#### **Storage Conditions**

Comply with applicable regulations. Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from: sparks, open flames, excessive heat. Store away from heat. Store in a cool area. Store in a dry area. Store in a well-ventilated place. Keep locked up. Keep only in original container. Meet the legal requirements.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

|                            |               |                      |
|----------------------------|---------------|----------------------|
| <b>Bromacil (314-40-9)</b> |               |                      |
| ACGIH                      | ACGIH OEL TWA | 10 mg/m <sup>3</sup> |

Distillates (petroleum), hydrotreated middle; Gasoil— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C11 through C25 and boiling in the range of approximately; 205°C to 400°C (401 °F to 752 °F).] (64742-46-7)

Not applicable

|  |                  |                    |
|--|------------------|--------------------|
| <b>Crystalline Silica (14808-60-7)</b> |                  |                    |
| OSHA                                   | OSHA PEL TWA [1] | 0.1                |
| OSHA                                   | Remark (OSHA)    | (3) See Table Z-3. |

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

#### Personal protective equipment

Safety glasses. Gloves. Protective clothing. Use appropriate personal protective equipment when risk assessment indicates this is necessary.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                |                   |
|----------------|-------------------|
| Physical State | Solid             |
| Appearance     | Grey granules     |
| Color          | Grey              |
| Odor           | Mild odor         |
| Odor Threshold | No data available |

| <u>Property</u>                                 | <u>Values</u>     |
|---|-------------------|
| pH  | No data available |
| Melting point                                   | No data available |
| Freezing point                                  | No data available |
| Boiling point                                   | No data available |
| Flash point                                     | No data available |
| Relative evaporation rate (butylacetate=1)      | No data available |
| Flammability                                    | No data available |
| Explosive limits                                | No data available |
| Explosive properties                            | No data available |
| Oxidising properties                            | No data available |
| Vapour pressure                                 | No data available |
| Relative density                                | No data available |
| Relative vapour density at 20 °C                | No data available |
| Solubility                                      | Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | No data available |
| Partition coefficient n-octanol/water (Log Kow) | No data available |
| Auto-ignition temperature                       | No data available |
| Decomposition temperature                       | No data available |
| Viscosity                                       | No data available |
| Viscosity, kinematic                            | No data available |
| Viscosity, dynamic                              | No data available |

## 10. STABILITY AND REACTIVITY

### Reactivity

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, sulphur oxides, carbon monoxide - carbon dioxide). If the product is involved in a fire, it can release toxic chlorine gases. Reacts violently with (strong) oxidizers.

### Chemical Stability

Combustible liquid. Stable under normal conditions. Risk of explosion if heated under confinement. Heating may cause a fire or explosion.

### Possibility Of Hazardous Reactions

Refer to section on Reactivity.

### Conditions To Avoid

No additional information available

### Incompatible Materials

Oxidizing agents.

### Hazardous Decomposition Products

Thermal decomposition produces: CO, CO<sub>2</sub>, Oxides of nitrogen and other potentially toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Not classified

| <b>Bromacil (314-40-9)</b> |                                   |
|----------------------------|-----------------------------------|
| LD50 oral rat              | 5200 mg/kg (Rat, Oral)            |
| LD50 dermal rat            | > 2500 mg/kg (Rat, Dermal)        |
| LD50 dermal rabbit         | > 5000 mg/kg (Rabbit, Dermal)     |
| LC50 Inhalation - Rat      | > 4.8 mg/l (4 h, Rat, Inhalation) |
| ATE CLP (oral)             | 5200 mg/kg bodyweight             |

### Skin corrosion/irritation

Not classified

### Serious eye damage/irritation

Not classified

### Respiratory or skin sensitization

Not classified

### Germ cell mutagenicity

Not classified

### Carcinogenicity

May cause cancer.

| <b>Crystalline Silica (14808-60-7)</b>   |                             |
|--|-----------------------------|
| IARC group                               | 1 - Carcinogenic to humans  |
| National Toxicology Program (NTP) Status | 2 - Known Human Carcinogens |

### Reproductive toxicity

Not classified

### Specific target organ toxicity (single exposure)

Not classified

### Specific target organ toxicity (repeated exposure)

Not classified

**Aspiration hazard**

Not classified

**Symptoms/injuries after inhalation**

May cause respiratory irritation.

**Symptoms/injuries after skin contact**

Slight irritation.

**Symptoms/injuries after eye contact**

Direct contact with the eyes is likely to be irritating.

**Symptoms/injuries after ingestion**

No data available.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

| Bromacil (314-40-9) |   |
|---------------------|---|
| LC50 - Fish [1]     | 75 mg/l (48 h, <i>Salmo gairdneri</i> ) |

**Persistence and Degradability**

| Bromacil (314-40-9)           |   |
|-------------------------------|---|
| Persistence and degradability | Non degradable in the soil. Not readily biodegradable in water. |

**Bioaccumulative potential**

| Bromacil (314-40-9)                             |  |
|---|--|
| BCF - Fish [1]                                  | 2.8 – 26.5 (672 h, <i>Leuciscus idus</i> , Fresh weight) |
| BCF - Fish [2]                                  | 4.25 (388 h, <i>Pimephales promelas</i> , Fresh weight)  |
| Partition coefficient n-octanol/water (Log Pow) | 2.11   |
| Bioaccumulative potential                       | Low potential for bioaccumulation (BCF < 500).           |

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Disposal of wastes**

Dispose of contents/container to comply with local/regional/national regulations.

**14. TRANSPORT INFORMATION**

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

**Department of Transportation (DOT)**

In accordance with DOT : Not regulated for transport

**Additional information**

Other information: No supplementary information available.

**ADR**

No additional information available

**Transport by sea**

No additional information available

**Air transport**

No additional information available

**15. REGULATORY INFORMATION****California Proposition 65**

WARNING: This product can expose you to Crystalline Silica, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Caution: Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing of dust.

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

**Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.**

| CHEMICAL NAME | CAS NO.  | WEIGHT - % | TRADE SECRET |
|---------------|----------|------------|--------------|
| Bromacil      | 314-40-9 | 1.0 - 5.0  | *            |

**U.S. EPA Label Information**

EPA Pesticide Registration Number 10088-55-91641

**16. OTHER INFORMATION**

**Training advice:** Normal use of this product shall imply use in accordance with the instructions on the packaging.

|             |                |   |              |   |            |   |
|-------------|----------------|---|--------------|---|------------|---|
| <b>NFPA</b> | Health hazards | 1 | Flammability | 0 | Reactivity | 0 |
|-------------|----------------|---|--------------|---|------------|---|



**Issue Date** 02/09/2023

**Revision Date** 03/02/2023

**Revision Note**

**N/A = Not Applicable; N/D = Not Determined**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**