# POLY-G HQEE®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 10/10/2020 Revision date: 08/18/2020 Supersedes: 07/22/2018 Version: 1.0

## SECTION 1: Identification

### 1.1. Identification

Product form : Substance

Trade name : POLY-G HQEE®

Chemical name : HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER

CAS-No. : 104-38-1

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Chemical intermediate

### 1.3. Supplier

Monument Chemical
2450 Olin Road
Brandenburg, KY 40108 - USA
T (270)422-6860
sds@monumentchemical.com - www.monumentchemical.com

### 1.4. Emergency telephone number

Emergency number : 24 HR CHEMTREC: 1-800-424-9300 (International +1 703-741-5970); 24 HR Emergency Assistance: 1-270-422-6860

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS US classification**

Not classified

### 2.2. GHS Label elements, including precautionary statements

According to the corresponding national regulations there is no labelling obligation for this product.

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Chemical name : HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER

CAS-No. : 104-38-1

| Name | Product identifier | % |
|---|---|---|
| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER | (CAS-No.) 104-38-1 | 89 – 100 |
| 2-(4-(2-(2-HYDROXYETHOXY)ETHOXY)PHENOXY)ETHANOL | (CAS-No.) 849677-06-1 | 0 – 8 |
| 4-(2-hydroxyethoxy)phenol | (CAS-No.) 13427-53-7 | 0 – 2 |
| Hydroquinone | (CAS-No.) 123-31-9 | < 0.4 |

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1)** | |
|---|---|
| No additional information available | |

| **2-(4-(2-(2-HYDROXYETHOXY)ETHOXY)PHENOXY)ETHANOL (849677-06-1)** | |
|---|---|
| No additional information available | |

| **4-(2-hydroxyethoxy)phenol (13427-53-7)** | |
|---|---|
| No additional information available | |

| **HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1)** | |
|---|---|
| No additional information available | |

| **Hydroquinone (123-31-9)** | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Hydroquinone |
| ACGIH TWA (mg/m³) | 1 mg/m³ |

| | |
|---|---|
| Remark (ACGIH) | Eye irr; eye dam; DSEN; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure) |
| ACGIH chemical category | dermal sensitizer, Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Hydroquinone |
| OSHA PEL (TWA) (mg/m³) | 2 mg/m³ |
| **USA - IDLH - Occupational Exposure Limits** | |
| US IDLH (mg/m³) | 50 mg/m³ |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL (ceiling) (mg/m³) | 2 mg/m³ |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

**Hand protection:**

Protective gloves

**Eye protection:**

Safety glasses

**Skin and body protection:**

Wear suitable protective clothing

**Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

**Personal protective equipment symbol(s):**

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Solid |
| Appearance | : White crystals or powder. |
| Color | : white |
| Odor | : Almost odourless |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : 98 °C |
| Freezing point | : Not applicable |
| Boiling point | : 190 °C |
| Flash point | : 224 °C (Open cup) |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapor pressure | : < 0.01 mm Hg (@ 25 Deg. C) |
| Relative vapor density at 20 °C | : No data available |

| | | |
|---|---|---|
| Relative density | : | 1.15 |
| Molecular mass | : | 198.2 g/mol |
| Solubility | : | Water: < 1 % |
| Partition coefficient n-octanol/water (Log Pow) | : | 0.61 |
| Auto-ignition temperature | : | 468 °C |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | No data available |
| Explosion limits | : | Not applicable |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

| | | |
|---|---|---|
| Acute toxicity (oral) | : | Not classified |
| Acute toxicity (dermal) | : | Not classified |
| Acute toxicity (inhalation) | : | Not classified |

| **HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1)** | |
|---|---|
| LD50 oral rat | > 5000 mg/kg body weight |
| LD50 dermal rat | > 2000 mg/kg body weight (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Dermal) |

| **Hydroquinone (123-31-9)** | |
|---|---|
| LD50 oral rat | 298 mg/kg |
| LD50 dermal rabbit | 74800 mg/kg |
| ATE US (oral) | 298 mg/kg body weight |
| ATE US (dermal) | 74800 mg/kg body weight |

| | | |
|---|---|---|
| Skin corrosion/irritation | : | Not classified |
| Serious eye damage/irritation | : | Not classified |
| Respiratory or skin sensitization | : | Not classified |
| Germ cell mutagenicity | : | Not classified |
| Carcinogenicity | : | Not classified |

| **Hydroquinone (123-31-9)** | |
|---|---|
| IARC group | 3 - Not classifiable |
| National Toxicology Program (NTP) Status | Evidence of Carcinogenicity |

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) | |
|---|---|
| NOAEL (oral,rat,90 days) | 249 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents) |

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) | |
|---|---|
| LC50 fish 1 | > 1044 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| EC50 Daphnia 1 | > 100.2 mg/l Test organisms (species): Daphnia magna |

| Hydroquinone (123-31-9) | |
|---|---|
| LC50 fish 1 | 0.044 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through]) |
| EC50 Daphnia 1 | 0.29 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| ErC50 (algae) | 0.33 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |

### 12.2. Persistence and degradability

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

| Hydroquinone (123-31-9) | |
|---|---|
| Persistence and degradability | Not established. |
| Biochemical oxygen demand (BOD) | 0.48 – 1.1 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.83 g $O_2$/g substance |
| ThOD | 1.89 g $O_2$/g substance |

### 12.3. Bioaccumulative potential

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 0.61 |

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 0.41 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 30 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| Hydroquinone (123-31-9) | |
|---|---|
| BCF fish 1 | 40 |
| Partition coefficient n-octanol/water (Log Pow) | 0.5 |
| Bioaccumulative potential | Not established. |

### 12.4. Mobility in soil

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) | |
|---|---|
| Ecology - soil | No (test)data on mobility of the substance available. |

| Hydroquinone (123-31-9) | |
|---|---|
| Partition coefficient n-octanol/water (Log Koc) | 1.585 (log Koc, SRC PCKOCWIN v2.0, Experimental value) |
| Ecology - soil | Highly mobile in soil. |

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Not regulated

**Transport by sea**

Not regulated

**Air transport**

Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| **HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1)** |
|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

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

| | | |
|---|---|---|
| 2-(4-(2-(2-HYDROXYETHOXY)ETHOXY)PHENOXY)ETHANOL | CAS-No. 849677-06-1 | 0 – 8% |
| 4-(2-hydroxyethoxy)phenol | CAS-No. 13427-53-7 | 0 – 2% |

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.

| | | |
|---|---|---|
| 1,4-Benzenediol | CAS-No. 123-31-9 | < 0.4% |

| **Hydroquinone (123-31-9)** | |
|---|---|
| Listed on EPA Hazardous Air Pollutant (HAPS) | |
| CERCLA RQ | 100 lb |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 100 lb |
| Section 302 EPCRA Reportable Quantity (RQ) | 100 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 – 10000 lb |

### 15.2. International regulations

**CANADA**

| **2-(4-(2-(2-HYDROXYETHOXY)ETHOXY)PHENOXY)ETHANOL (849677-06-1)** |
|---|
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) |

| **4-(2-hydroxyethoxy)phenol (13427-53-7)** |
|---|
| Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List) |

| **HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

| **Hydroquinone (123-31-9)** | |
|---|---|
| Listed on the Canadian DSL (Domestic Substances List) | |
| Toxic Substance (CEPA – Schedule I) | Yes |

**EU-Regulations**

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

| Hydroquinone (123-31-9) |
|---|
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

**National regulations**

| HYDROQUINONE BIS (2-HYDROXYETHYL) ETHER (104-38-1) |
|---|
| Listed on the AICS (Australian Inventory of Chemical Substances)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on the Japanese ISHL (Industrial Safety and Health Law)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on the TCSI (Taiwan Chemical Substance Inventory) |

| Hydroquinone (123-31-9) |
|---|
| Listed on the AICS (Australian Inventory of Chemical Substances)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on the Japanese ISHL (Industrial Safety and Health Law)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)<br>Japanese Pollutant Release and Transfer Register Law (PRTR Law)<br>Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed on the TCSI (Taiwan Chemical Substance Inventory) |

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

| Component | State or local regulations |
|---|---|
| Hydroquinone(123-31-9) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: Other information

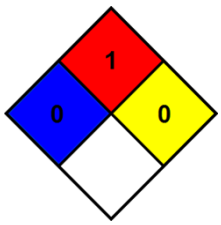
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 08/18/2020

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.




SDS US (GHS HazCom 2012)

*DISCLAIMER: Monument Chemical believes that the information expressly set forth in this Safety Data Sheet (SDS) is accurate as of the date of publication. MONUMENT CHEMICAL EXPRESSLY DISCLAIMS ALL WARRANTIES OF EVERY KIND AND NATURE, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Monument Chemical assumes no responsibility for any use of or reliance upon the data provided in this SDS. Given the variety of factors that can affect the use of the material, some of which are uniquely within the user's knowledge and control, the user should independently evaluate (i) the completeness and accuracy of the information provided herein and (ii) the material to determine whether it is suitable and safe for the user's intended use.*

*Monument Chemical provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, Monument Chemical makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from Monument Chemical.*