1 Identification

· Product name: Cleaning Solution, GP (Undiluted)
· Part number: 95-10230, 95-10235
· Application of the substance / the mixture: Alkaline cleaner/ detergent
· Details of the supplier of the safety data sheet
· Manufacturer/Supplier:
  Allied High Tech Products Inc.
  2376 East Pacifica Place
  USA-RANCHO DOMINGUEZ, CA 90220
  USA
  info@alliedhihtech.com
· Information department: Product safety department
· Emergency telephone number:
  During normal opening times: +1 (310) 635-2466
  Chemtrec: +1 (202) 483-7616

2 Hazard(s) identification

· Classification of the substance or mixture

  GHS05 Corrosion
  Skin Corr. 1B  H314  Causes severe skin burns and eye damage.
  Eye Dam. 1  H318  Causes serious eye damage.

· Label elements
· GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms

  GHS05

· Signal word: Danger
· Hazard-determining components of labeling:
  disodium metasilicate
· Hazard statements
  Causes severe skin burns and eye damage.
· Precautionary statements
  Do not breathe dusts or mists.
  Wash thoroughly after handling.
  Wear eye protection / face protection.
  If swallowed: Rinse mouth. Do NOT induce vomiting.

(Contd. on page 2)
Product name: Cleaning Solution, GP (Undiluted)

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)

- Health = 3
- Fire = 0
- Reactivity = 0

HMIS-ratings (scale 0 - 4)

- Health = 2
- Fire = 1
- Reactivity = 0

Other hazards

Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Hazardous Components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>ethylene glycol monobutyl ether</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>† Acute Tox. 3, H331; ‡ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227</td>
<td></td>
</tr>
<tr>
<td>6834-92-0</td>
<td>disodium metasilicate</td>
<td>≥5-&lt;10%</td>
</tr>
<tr>
<td></td>
<td>† Skin Corr. 1B, H314; ‡ Acute Tox. 4, H302; STOT SE 3, H335</td>
<td></td>
</tr>
</tbody>
</table>

Non-hazardous Components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>water, distilled, conductivity or of similar purity</td>
<td>50-100%</td>
</tr>
</tbody>
</table>

4 First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.
After inhalation: In case of unconsciousness place patient stably in side position for transportation.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed: No further relevant information available.
Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: Use fire fighting measures that suit the environment.
Special hazards arising from the substance or mixture: During heating or in case of fire poisonous gases are produced.

(Contd. on page 3)
Product name: Cleaning Solution, GP (Undiluted)

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Mount respiratory protective device.
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions:
  Do not allow to enter sewers/ surface or ground water.
  Dilute with plenty of water.
· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
· 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

· Handling:
  · Precautions for safe handling Prevent formation of aerosols.
  · Information about protection against explosions and fires: Keep respiratory protective device available.
· Conditions for safe storage, including any incompatibilities
· Storage:
  · Requirements to be met by storerooms and receptacles:
    Store in a cool location.
    No special requirements.
  · Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
  · Keep away from heat.
  · Keep receptacle tightly sealed.
  · Store receptacle in a well ventilated area.
· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.
· Control parameters
  · Components with limit values that require monitoring at the workplace:
    The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
    At this time, the remaining constituent has no known exposure limits.
Product name: Cleaning Solution, GP (Undiluted)

<table>
<thead>
<tr>
<th>111-76-2 ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong></td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td><strong>REL</strong></td>
</tr>
<tr>
<td>Skin</td>
</tr>
<tr>
<td><strong>TLV</strong></td>
</tr>
<tr>
<td>BEI</td>
</tr>
</tbody>
</table>

**Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th>111-76-2 ethylene glycol monobutyl ether</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEI</strong></td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Time: end of shift</td>
</tr>
<tr>
<td>Parameter: Butyrylacetic acid with hydrolysis</td>
</tr>
</tbody>
</table>

**Additional information:** The lists that were valid during the creation were used as basis.

**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.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.

**Protection of hands:**

- Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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

**Material of gloves**

- Neoprene gloves
- Nitrile rubber, NBR

**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:**

- Tightly sealed goggles

**9 Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

- **Form:** Liquid
- **Color:** Red
- **Odor:** Butyl-like
- **Odor threshold:** Not determined.

**pH-value at 20 °C (68 °F):** 12
Product name: Cleaning Solution, GP (Undiluted)

(Contd. of page 4)

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.

- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.
- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)
- **Density:**
  - Relative density: 1.06
  - Vapor density: Not determined.
  - Evaporation rate: Not determined.
- **Solubility in / Miscibility with**
  - Water: Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- **Solvent content:**
  - Organic solvents: 10.0 %
  - Water: 80.0 %
  - VOC content: 10.00 %
  - 100.0 g/l / 0.83 lb/gal
- **Other information** No further relevant information available.

10 **Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
  - Keep away from oxidising agents and acidic substances.
  - Keep away from open flames. - No smoking.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide
- **Additional information:** Hazardous decomposition products may form during combustion.

11 **Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
  - **ATE (Acute Toxicity Estimate)**
    - Oral: LD50 6,864 mg/kg (rat)

(Contd. on page 6)
Product name: Cleaning Solution, GP (Undiluted)

<table>
<thead>
<tr>
<th>Dermal</th>
<th>LD50</th>
<th>4,000 mg/kg (rab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>22 mg/l (rat)</td>
</tr>
</tbody>
</table>

111-76-2 ethylene glycol monobutyl ether

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>1,480 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>400 mg/kg (rab)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>2.2 mg/l (rat)</td>
</tr>
</tbody>
</table>

6834-92-0 disodium metasilicate

| Oral | LD50  | 1,280 mg/kg (rat) |

- **Primary chemical irritant effect:**
  - **on the skin:** Caustic effect on skin and mucous membranes.
  - **on the eye:**
    - Strong caustic effect.
    - Strong irritant with the danger of severe eye injury.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
    - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 111-76-2 ethylene glycol monobutyl ether [3]
  - **NTP (National Toxicology Program)**
    - None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    - None of the ingredients is listed.

**12 Ecological information**

- **Toxicity**
  - **Aquatic toxicity:**
    - 111-76-2 ethylene glycol monobutyl ether
      - EC50 (48 h) (static): 1,550 mg/l (daphnia)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**
    - Water hazard class 1 (Self-assessment): slightly hazardous for water
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    - Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
  - **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:** Contact waste processors for recycling information.
Product name: Cleaning Solution, GP (Undiluted)

- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

### 14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, IMDG, IATA</th>
<th>UN3266</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DOT, IMDG, IATA</td>
<td>Corrosive liquid, basic, inorganic, n.o.s. (Disodium trioxosilicate)</td>
</tr>
<tr>
<td>DOT</td>
<td>IMDG, IATA</td>
<td>CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (DISODIUM TRIOXOSILICATE)</td>
</tr>
</tbody>
</table>

- Transport hazard class(es)
  - DOT, IMDG, IATA
  - Class: 8 Corrosive substances
  - Label: 8

- Packing group
  - DOT, IMDG, IATA
  - Class: 8 Corrosive substances
  - Label: 8

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Hazard identification number (Keimer code): Warning: Corrosive substances 88
  - EMS Number: F-A,S-B
  - Segregation groups: Alkalis
  - Stowage Category: B
  - Stowage Code: SW2 Clear of living quarters.
  - Segregation Code: SG35 Stow "separated from" acids.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

- Transport/Additional information:
  - DOT
    - Quantity limitations: On passenger aircraft/rail: 0.5 L
                             On cargo aircraft only: 2.5 L
  - Limited quantities (LQ): 0
  - Transport category: 1
  - Tunnel restriction code: E

- IMDG
  - Limited quantities (LQ): 0
Product name: Cleaning Solution, GP (Undiluted)

15 Regulatory information

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

  · Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

  · Section 313 (Specific toxic chemical listings):
    111-76-2 ethylene glycol monobutyl ether

· TSCA (Toxic Substances Control Act):
  All components have the value ACTIVE.

· Hazardous Air Pollutants
  None of the ingredients is listed.

· Proposition 65

  · Chemicals known to cause cancer:
    None of the ingredients is listed.

  · Chemicals known to cause reproductive toxicity for females:
    None of the ingredients is listed.

  · Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.

  · Chemicals known to cause developmental toxicity:
    None of the ingredients is listed.

· Carcinogenic categories

  · EPA (Environmental Protection Agency)
    111-76-2 ethylene glycol monobutyl ether NL

  · TLV (Threshold Limit Value established by ACGIH)
    111-76-2 ethylene glycol monobutyl ether A3

  · NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.

· 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.

· Department issuing SDS: Environment protection department.
· Contact: Kim Dermit
· Last revision: 04/30/2020 / 1.0

Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Product name: Cleaning Solution, GP (Undiluted)

VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flam. Liq. 4: Flammable liquids – Category 4
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3