Safety data sheet
according to 1907/2006/EC, Article 31

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

1.1 Product identifier
BTC-50 NF

1.2 Relevant identified uses of the substance or mixture and uses avoided against
Application of the substance / the mixture
Coolant/ Cutting solution

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Alexander BINZEL
Schweißtechnik GmbH & Co.KG
Postfach 10 01 53 / D-35331 Giessen
Tel.: +49 (0) 6408 / 59-0
Fax: +49 (0) 6408 / 59-191
Mail: technischedokumentation@binzel-abicor.com

Further information obtainable from:
Technical Documentation

1.4 Emergency telephone number:
Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen
Langenbeckstraße 1; Gebäude 601; 55131 Mainz
Tel. Nr.: +49 (0)6131 / 19 24 0
Universitätsmedizin der Johannes Gutenberg-Universität Mainz

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.

Hazard pictograms
GHS08

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description:
Mixture: consisting of the following components.

Dangerous components:
CAS: 107-21-1
EINECS: 203-473-3
Index number: 603-027-00-1
Reg.nr.: 01-219456816-28
ethanediol STOT RE 2, H373; Acute Tox. 4, H302 50-100%

Additional information:
For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Do not leave affected persons unattended. Personal protection for the First Aider. Take affected persons out of danger area and lay down.

After inhalation:
In case of unconsciousness place patient stably in side position for transportation. Supply fresh air; consult doctor in case of complaints.

After skin contact:
Immediately wash with water and soap and rinse thoroughly. Seek medical treatment in case of complaints.

(Contd. on page 2)
SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture
- Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Do not inhale explosion gases or combustion gases.
- 5.4 Additional information
- Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation.
- Avoid contact with skin and eyes.
- 6.2 Environmental precautions:
- Inform respective authorities in case of seepage into water course or sewage system.
- Do not allow to enter sewers/ surface or ground water.
- Prevent from spreading (e.g. by damming-in or oil barriers).
- 6.3 Methods and material for containment and cleaning up:
- Ensure adequate ventilation.
- Dispose contaminated material as waste according to item 13.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 6.4 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.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
- Store in cool, dry place in tightly closed receptacles.
- Ensure good ventilation/exhaustion at the workplace.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:
- Store only in the original receptacle.
- Information about storage in one common storage facility:
- Store away from foodstuffs.
- Further information about storage conditions:
- Store in dry conditions.
- Keep container tightly sealed.
- Recommended storage temperature: 5-30 °C
- 7.3 Specific end use(s)
- No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
- No further data; see item 7.
- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-21-1 ethanediol</td>
<td>104** mg/m³, 40** ppm</td>
<td>52** mg/m³, 20** ppm</td>
</tr>
<tr>
<td>WEL</td>
<td>Sk **particulate **vapour</td>
<td></td>
</tr>
</tbody>
</table>

- Regulatory information
- WEL: EH40/2018
- Additional information:
- The lists valid during the making were used as basis.
- 8.2 Exposure controls

- Personal protective equipment:

  - General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. 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 and skin.

- Respiratory protection: When used properly and under normal conditions, breathing protection is not required. Use suitable respiratory protective device in case of insufficient ventilation. Filter A/P2 Respiratory protection - Gas filters and combination filters according to (DIN EN 141)

- Protection of hands:

  Protective gloves
  Check protective gloves prior to each use for their proper condition. Only use chemical-protective gloves with CE-labelling of category III. 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. After use of gloves apply skin-cleaning agents and skin cosmetics.

- Material of gloves

  Recommended materials: Butyl rubber, BR
  Recommended thickness of the material: ≥ 0.5 mm Penetration time (min.): < 480
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- Penetration time of glove material

- As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR
  Recommended thickness of the material: ≥ 0.1 mm Penetration time (min.): < 10

- Eye protection:

  Tightly sealed goggles

  - Body protection:

    Protective goggles and facial protection - Classification according to EN 166 protective clothing (EN 13034)

### SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

  **- General Information**

  **- Appearance:**
  
<table>
<thead>
<tr>
<th>Form</th>
<th>Fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>According to product specification</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

  **- pH-value at 20 °C:** 6

  **- Change in condition**

  | Melting point/freezing point: | Undetermined |
  | Initial boiling point and boiling range: | Undetermined |

  **- Flash point:** 111 °C

  **- Flammability (solid, gas):** Not applicable.

  **- Decomposition temperature:** Not determined.

  **- Auto-ignition temperature:** Product is not selfigniting.

  **- Explosive properties:** Product does not present an explosion hazard.

  **- Explosion limits:**
  
  | Lower | Not determined |
  | Upper | Not determined |

  **- Density at 20 °C:** 1.07 g/cm³

  **- Relative density:** Not determined.

  **- Vapour density:** Not determined.
- Evaporation rate: Not determined.

- Solubility / Miscibility with water: Not determined.

- Partition coefficient: n-octanol/water: Not determined.

- Viscosity: Dynamic: Not determined.
  Kinematic: Not determined.

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.

- 10.2 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: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects:

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

    **LD/EC50 values relevant for classification:**

    **107-21-1 ethanediol**

    **Oral**
    - LD50: 7,712 mg/kg (rat)
    - LDLo: ~1,600 mg/kg (human) ((EU))

    **Dermal**
    - LD50: >3,500 mg/kg (mouse)
    - 9,530 mg/kg (rabbit)
    - LC50: >2.5 mg/l (rat) (6h; as aerosol)

  - Primary irritant effect:
    - 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.
    - CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
      - 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: Based on available data, the classification criteria are not met.
      - STOT-repeated exposure: May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
      - Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- 12.1 Toxicity:

  **107-21-1 ethanediol**

  **EC20**
  - >1,995 mg/l (Belebtschlamm) (0,5h; ISO 8192)

  **EC50**
  - >10,000 mg/l (ALGAE)
  - >100 mg/l (Daphnia magna) (48h; OECD 202)
  - 6,500-13,000 mg/l (Selenastrum capricornutum) (96h)

  **NOEC**
  - 8,590 mg/l (Ceriodaphnia dubia) (7d)

  **LC50**
  - 18,000 mg/l (Onchorhynchus mykiss (Regenbogenforelle)) (96h)
  - 72,860 mg/l (Pimephales promelas) (96h; static test)
  - NOEC: 15,380 mg/l (Pimephales promelas) (7d)

- 12.2 Persistence and degradability: No further relevant information available.

- 12.3 Bioaccumulative potential: No further relevant information available.

- 12.4 Mobility in soil: No further relevant information available.

- Additional ecological information:
  - General notes: Water hazard class 1 (German Regulation) (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.
SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
    - Must not be disposed together with household garbage. Do not allow product to reach sewage system.
    - Disposal according to official regulations

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
  - Not applicable.
  - UN “Model Regulation”:
    - Void

SECTION 14: Transport information

- 14.1 UN-Number
  - ADR, ADN, IMDG, IATA: Void
- 14.2 UN proper shipping name
  - ADR, ADN, IMDG, IATA: Void
- 14.3 Transport hazard class(es)
  - ADR, ADN, IMDG, IATA: Void
- 14.4 Packing group
  - ADR, IMDG, IATA: Void
- 14.5 Environmental hazards:
  - Marine pollutant:
    - No
- 14.6 Special precautions for user
  - Not applicable.

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - None of the ingredients is listed.
  - Conditions of restriction: 3

- 15.2 Chemical safety assessment
  - A Chemical Safety Assessment has not been carried out.

SECTION 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.

- Relevant phrases
  - H302 Harmful if swallowed.
  - H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

- Department issuing SDS
  - Technical Documentation

- Contact
  - Technical Documentation
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association

(Contd. on page 6)
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

- Sources

Internet:
- www.echa.europa.eu
- www.baua.de

IFA: Institute für Occupational Safety and Health of the German Social Accident Insurance:
- www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp
- www.dguv.de/ifa/gestis/gestis-dnel-liste

* Data compared to the previous version altered.