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

1.1 Product identifier

BTC-15

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: intended for professional use only!

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: technischesdokumentation@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

Flam. Liq. 3 H226 Flammable liquid and vapour.
Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

The product is classified and labelled according to the CLP regulation.

Signal word Warning
Hazard statements
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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: 67-63-0 | propan-2-ol | Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 | 10-12.5% |
| EINECS: 200-661-7 | | |
| Index number: 603-117-00-0 | | |
| Reg.nr.: 01-2119457558-25 | | |

| CAS: 107-21-1 | ethanediol | STOT RE 2, H373; Acute Tox. 4, H302 | 2.5-10% |
| EINECS: 203-473-3 | | |
| Index number: 603-027-00-1 | | |
| Reg.nr.: 01-2119456816-28 | | |

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: Seek medical treatment. Immediately wash with water and soap and rinse thoroughly. Seek medical treatment in case of complaints.
  - After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Protect unharmed eye.
  - After swallowing: If symptoms persist consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed
  - No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed
  - No further relevant information available.

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
  - Protective equipment: Do not inhale explosion gases or combustion gases.
  - 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. Avoid contact with skin and eyes. Ensure adequate ventilation. Keep away from ignition sources.

- 6.2 Environmental precautions:
  - In case of seepage into the ground inform responsible authorities. Prevent from spreading (e.g. by damming-in or oil barriers). Do not allow to enter sewers/ surface or ground water.

- 6.3 Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Do not flush with water or aqueous cleansing agents.

- 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. Prevent formation of aerosols.

- Information about fire - and explosion protection:
  - Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

- 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.
    - Information about storage conditions:
      - Store in dry conditions. Keep container tightly sealed. Recommended storage temperature: 5-30 °C
SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Substance</th>
<th>WEL Short-term value</th>
<th>WEL Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 propan-2-ol</td>
<td>1250 mg/m³, 500 ppm</td>
<td>999 mg/m³, 400 ppm</td>
</tr>
<tr>
<td>107-21-1 ethanediol</td>
<td>104** mg/m³, 40** ppm</td>
<td>10* 52** mg/m³, 20** ppm</td>
</tr>
</tbody>
</table>

- Regulatory information
WEL: EH40/2018

- Additional information:
The lists valid during the making were used as basis.

- 8.1 Control parameters

- 8.2 Exposure controls

- 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.

- Penetration time of glove material
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.

- 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

SECT 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:
  - Form: Fluid
  - Colour: According to product specification
  - Odour: Characteristic
### 49. Odour threshold: Not determined.

- **pH-value at 20 °C:** 6

**- Change in condition**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Undetermined.</td>
</tr>
</tbody>
</table>

**- Flash point:** 37 °C (ISO 3679)

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

**- Decomposition temperature:** Not determined.

**- Auto-ignition temperature:** Product is not self-igniting.

**- Explosion properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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

**- Density at 20 °C:** 0.98 g/cm³

- **Relative density:** Not determined.

- **Vapour density:** Not determined.

- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with water:** Not determined.

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

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

**- 9.2 Other information**

No further relevant information available.

### 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.

**- 10.3 Possibility of hazardous reactions**

Reacts with acids, alkalis and oxidising agents.

**- 10.4 Conditions to avoid**

No further relevant information available.

**- 10.5 Incompatible materials:**

No further relevant information available.

**- 10.6 Hazardous decomposition products:**

No dangerous decomposition products known.

### 11. Toxicological information

**- 11.1 Information on toxicological effects**

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

**- LD/LC50 values relevant for classification:**

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>5,840 mg/kg (rat) (OECD 401)</td>
</tr>
<tr>
<td>NOAEL</td>
<td>853 mg/kg (rat) (1d; OECD 415)</td>
</tr>
<tr>
<td>Dermal</td>
<td>13,900 mg/kg (rabbit) (OECD 402)</td>
</tr>
<tr>
<td>LC50</td>
<td>&gt;25 mg/l (rat) (6h vapour; OECD 403)</td>
</tr>
</tbody>
</table>

**107-21-1 ethanediol**

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>7,712 mg/kg (rat)</td>
</tr>
<tr>
<td>LDLo</td>
<td>~1,600 mg/kg (human) (EU)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;3,500 mg/kg (mouse)</td>
</tr>
<tr>
<td>LC50</td>
<td>&gt;2.5 mg/l (rat) (6h; as aerosol)</td>
</tr>
</tbody>
</table>

**- Primary irritant effect:**

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

**- Skin corrosion/irritation**

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

**- Serious eye damage/irritation**

Causes serious eye irritation.

**- Respiratory or skin sensitisation**

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

**- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

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.
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

67-63-0 propan-2-ol
LC50/96 h 9,640 mg/l (Pimephales promelas) (OECD 203)
EC50 >100 mg/l (Daphnia magna)
EC50 >100 mg/l (Scenedesmus subspicatus) (72h)
LOEC 1,000 mg/l (ALGAE) (8d)

107-21-1 ethanediol
EC20 >1,995 mg/l (Belebtschlamm) (0,5h; ISO 8192)
EC50 >10,000 mg/l (ALGAE)
EC50 >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 (Oncorhynchus mykiss (Regenbogenforelle)) (96h)
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.

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects
No further relevant information available.

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. European waste catalogue

14 06 03* other solvents and solvent mixtures
15 01 10* packaging containing residues of or contaminated by hazardous substances
15 01 02 plastic packaging

Uncleaned packaging:
Recommendation:
Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA
UN1993

14.2 UN proper shipping name
ADR
IMDG, IATA
1993 FLAMMABLE LIQUID, N.O.S. ((ISOPROPANOL (ISOPROPYL ALCOHOL))
FLAMMABLE LIQUID, N.O.S. ((ISOPROPANOL (ISOPROPYL ALCOHOL))

14.3 Transport hazard class(es)
ADR

Class
3 (F1) Flammable liquids.
### SECTION 15: Regulatory information

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

- Directive 2012/18/EU: None of the ingredients is listed.
- Named dangerous substances - ANNEX I: P5c FLAMMABLE LIQUIDS
- Seveso category: None of the ingredients is listed.
- Qualifying quantity (tonnes) for the application of lower-tier requirements: 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements: 50,000 t
- REGULATION (EC) No 1907/2006 ANNEX XVII: 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:
  - H225: Highly flammable liquid and vapour.
  - H302: Harmful if swallowed.
  - H319: Causes serious eye irritation.
  - H336: May cause drowsiness or dizziness.
  - H373: May cause damage to organs through prolonged or repeated exposure.

- Department issuing SDS: Technical Documentation
- Contact: Technical Documentation
- Abbreviations and acronyms:
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: BTC-15

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
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
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Sources
Internet:
- www.echa.europa.eu
- www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp
- www.dguv.de/ifa/gestis/gestis-dnel-liste

* Data compared to the previous version altered.