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

- 1.1 Product identifier
- Trade name: i.CLEANER
- Application of the substance / the mixture: Cleaning product

- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
i.GLUESYSTEMS GmbH
Ulmerstr. 53/1
D-73262 Reichenbach
Tel.: 0049/(0) 7153 929 7885
Fax.: 0049/(0) 7153 922 5041

- Further information obtainable from:
  Tel.: 0049- (0) 7153 929 7886
  E-Mail: mail@i-gluesystems.de
- 1.4 Emergency telephone number: Tel.: 0049 (0)51-19240

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  None
- 2.2 Label elements
- Labelling according to Regulation (EC) No. 1272/2008 [CLP]
  Special rules for supplemental label elements for certain mixtures
  EUH210 Safety data sheet available on request.
- 2.3 Other hazards
  None

SECTION 3: Composition / information on ingredients

- 3.2 Mixtures
- Hazardous ingredients
  ETHANOL; REACH registration No.: 01-2119457610-43-XXXX; EC No.: 200-578-6; CAS No.: 64-17-5
  Weight fraction: ≥ 10 - < 15 %
  Classification 1272/2008 [CLP]: Flam. Liq. 2; H225 Eye Irrit. 2; H319
  BUTY CELLOSOLVE; REACH registration No.: 01-2119475108-36-XXXX; EC No.: 203-905-0; CAS No.: 111-76-2
  Weight fraction: ≥ 1 - < 5 %
  Classification 1272/2008 [CLP]: Acute Tox. 4; H302 Acute Tox. 4; H312 Acute Tox. 4;
  H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319
- Additional Information
  Full text of H- and EUH-phrases: see section 16.

(Contd. on page 2)
SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information
When in doubt or if symptoms are observed, get medical advice.
- Following inhalation
In case of respiratory tract irritation, consult a physician. Remove casualty to fresh air and keep warm and at rest
- In case of skin contact
After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.
- After eye contact
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- After ingestion
Rinse mouth immediately and drink plenty of water. Call a physician immediately.
- 4.2 Most important symptoms and effects, both acute and delayed
None
- 4.3 Indication of any immediate medical attention and special treatment needed
None

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing media
Water Foam Extinguishing powder Carbon dioxide (CO2) Sand Nitrogen Extinguishing blanket
- 5.2 Special hazards arising from the substance or mixture Hazardous combustion products
Hazardous combustion products Nitrogen oxides (NOx). Carbon dioxide (CO2) Carbon monoxide.
- 5.3 Advice for firefighters
Apply foam in abundant quantities since some of it gets destroyed by the product. Wear a self-contained breathing apparatus and chemical protective clothing.
- 5.4 Additional information
Move undamaged containers from immediate hazard area if it can be done safely. Co-ordinate firefighting measures to the fire surroundings.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Special danger of slipping by leaking/spilling product.
- 6.2 Environmental precautions
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil

(Contd. on page 3)
6.3 Methods and material for containment and cleaning up
Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Wash with plenty of water. Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities
Keep/Store only in original container. Protect against Frost

Hints on joint storage
Storage class (TRGS 510) : 12

7.3 Specific end use(s)
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limit values
ETHANOL ; CAS No. : 64-17-5
Limit value type (country of origin): TRGS 900 ( D )
Limit value: 500 ppm / 960 mg/m³
Peak limitation: 2(II)
Remark: Y
Version: 02.04.2014

BUTYL CELLOSOLVE ; CAS No. : 111-76-2
Limit value type (country of origin): TRGS 900 ( D )
Limit value: 20 ppm / 98 mg/m³
Peak limitation: 4(II)
Remark: H,Y
Version: 02.04.2014

Limit value type (country of origin): STEL ( EC )
Limit value: 50 ppm / 246 mg/m³
Remark: H
Version: 08.06.2000

Limit value type (country of origin): TWA ( EC )
Limit value: 20 ppm / 98 mg/m³
Remark: H
Version: 08.06.2000
· Biological limit values
BUTYL CELLOSOLVE ; CAS No. : 111-76-2
Limit value type (country of origin): TRGS 903 (D) Butoxy acetic acid / Urine (U) / At long term exposure: after several previous shifts
Limit value: 100 mg/l
Version: 31.03.2004

· DNEL/DMEL and PNEC values DNEL/DMEL
DNEL/DMEL
Limit value type: DNEL worker (local) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2 )
Exposure route: Inhalation
Exposure frequency: Short-term (acute)
Limit value: 246 mg/m³
Limit value type: DNEL worker (local) (ETHANOL ; CAS No. : 64-17-5 )
Exposure route: Inhalation
Exposure frequency: Short-term (acute)
Limit value: 1900 mg/m³
Limit value type: DNEL worker (systemic) (ETHANOL ; CAS No. : 64-17-5 )
Exposure route: Inhalation
Exposure frequency: Long-term (repeated)
Limit value: 950 mg/m³
Limit value type: DNEL worker (systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2 )
Exposure route: Inhalation
Exposure frequency: Long-term (repeated)
Limit value: 98 mg/m³
Limit value type: DNEL worker (systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2 )
Exposure route: Inhalation
Exposure frequency: Short-term (acute)
Limit value: 663 mg/m³
Limit value type: DNEL worker (systemic) (ETHANOL ; CAS No. : 64-17-5 )
Exposure route: Dermal
Exposure frequency: Long-term (repeated)
Limit value: 343 mg/kg
Limit value type: DNEL worker (systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2 )
Exposure route: Dermal
Exposure frequency: Long-term (repeated)
Limit value: 75 mg/kg
Limit value type: DNEL worker (systemic) (BUTYL CELLOSOLVE ; CAS No. : 111-76-2 )
Exposure route: Dermal
Exposure frequency: Short-term (acute)
Limit value: 89 mg/kg

(Contd. on page 5)
8.2 Exposure controls
- Personal protection equipment
- Eye/face protection
  Wear suitable safety goggles in case of splash.
- Suitable eye protection
  Safety goggles acc. EN 166.
- Skin protection
- Hand protection
  Wear protective gloves in case of longer lasting skin contact.
  - Suitable gloves type: EN 374.
  - Suitable material: NBR (Nitrile rubber)
  - Breakthrough time (maximum wearing time): 480 min
  - Thickness of the glove material: 0.4 mm
  - Remark: The exact breakthrough time has to be requested from the protective glove manufacturer and limits has to be ensured.
- Respiratory protection
  Respiratory protection necessary at: exceeding exposure limit values
  - Suitable respiratory protection apparatus
  Combination filtering device (EN 14387)
  Type: A
  - Remark
  Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

8.3 Additional information
No tests have been performed. Selection made for preparations according to the best available knowledge and information on ingredients. In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
- Appearance: liquid
- Colour: transparent
- Odour: characteristic

Safety relevant basis data
- Solidifying point: (1013 hPa) ca. -8.5 °C
- Initial boiling point and boiling range: (1013 hPa) 72 °C
- Flash point: 40 °C
- **Lower explosion limit**: not relevant
- **Upper explosion limit**: not relevant
- **Vapour pressure**: (50 °C) < 1000 hPa
- **Density**: (20 °C) ca. 0.97 g/cm³
- **pH**: ca. 10.8
- **Flow time**: (20 °C) ca 19 s DIN-cup 4 mm
- **Maximum VOC content (EC)**: 18.9 Wt-%
- **Maximum VOC content (Switzerland)**: 18.9 Wt-%

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
  No information available.
- **10.2 Chemical stability**
  Under normal pressure: distillation without decomposition.
- **10.3 Possibility of hazardous reactions**
  Do not spray on naked flames or any incandescent material.
- **10.4 Conditions to avoid**
  No information available.
- **10.5 Incompatible materials**
  No information available.
- **10.6 Hazardous decomposition products**

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute effects**
- **Acute oral toxicity**
  Parameter: ATEmix calculated
  Exposure route: Oral
  Effective dose: >2000 mg/kg
  Parameter: LD₅₀ (ETHANOL; CAS No.: 64-17-5)
  Species: Rat
  Effective dose: 10470 mg/kg
  Method: OECD 401
  Parameter: LD₅₀ (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
  Exposure route: Oral
  Species: Rat
  Effective dose: 1250 – 1490 mg/kg
  Method: OECD 401
- **Acute dermal toxicity**
  Parameter: ATEmix calculated
  Exposure route: Dermal
  Effective dose: >2000 mg/kg
  Parameter: LD50 (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
  Exposure route: Dermal
  Species: Rabbit
  Effective dose: 841mg/kg
  Method: OECD 402
  Parameter: LD60 (ETHANOL; CAS No.: 64-17-5)
  Exposure route: Dermal
  Species: Rabbit
  Effective dose: 20g/kg

- **Acute inhalation toxicity**:
  Parameter: ATEmix calculated
  Exposure route: Inhalation
  Effective dose: >20 mg/l
  Parameter: LC50 (ETHANOL; CAS No.: 64-17-5)
  Exposure route: Inhalation
  Species: Rat
  Effective dose: 116,9 – 133,8 mg/l
  Exposure time: 4 h
  Method: OECD 403
  Parameter: LC50 (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
  Exposure route: Inhalation
  Species: Rat
  Effective dose: 2 – 20 mg/l
  Exposure time: 4 h

- **11.2 Toxicokinetics, metabolism and distribution**
  There are no data available on the preparation/mixture itself.

- **11.3 Other adverse effects**
  Frequently or prolonged contact with skin may cause dermal irritation. Has degreasing effect on the skin. May be absorbed through the skin.

- **11.4 Additional information**
  Preparation not tested. The statement is derived from the properties of the single components.

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**SECTION 12: Ecological information**

- **12.1 Toxicity**
  **Aquatic toxicity**
  **Acute (short-term) fish toxicity**
  Parameter: LC50 (ETHANOL; CAS No.: 64-17-5)
  Species: Pimephales promelas (fathead minnow)
  Evaluation parameter: Acute (short-term) fish toxicity
  Effective dose: 14,2 g/l
  Exposure time: 96 h
  Parameter: LC50 (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species: Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter: Acute (short-term) fish toxicity
Effective dose: 1474 mg/l
Exposure time: 96 h
Method: OECD 203
Parameter: LC50 (BUTYGLYKOL; CAS-Nr: 111-76-2)
Species: Daphnia magna (Big water flea)
Evaluation parameter: Acute (short-term) daphnia toxicity
Effective dose: 1815 mg/l
Exposure time: 24 h
Method: DIN 38412 / Teil 11
Parameter: LC50 (ETHANOL; CAS No.: 64-17-5)
Species: Fish
Evaluation parameter: Chronic (long-term) fish toxicity
Effective dose: 9164 – 14536 mg/l
Exposure time: 200 h
Parameter: LC50 (ETHANOL; CAS No.: 64-17-5)
Species: Daphnia
Evaluation parameter: Chronic (long-term) daphnia toxicity
Effective dose: 1806 mg/l
Exposure time: 10 d
Parameter: LC50 (BUTYGLYKOL; CAS-Nr: 111-76-2)
Species: Daphnia magna (Big water flea)
Evaluation parameter: Chronic (long-term) daphnia toxicity
Effective dose: 297 mg/l
Exposure time: 21 d
Method: OECD 211
- **Acute (short-term) daphnia toxicity**
  Parameter: EC50 (ETHANOL; CAS No.: 64-17-5)
  Species: Daphnia
  Evaluation parameter: Acute (short-term) daphnia toxicity
  Effective dose: 5012 mg/l
  Exposure time: 48 h
- **Chronic (long-term) daphnia toxicity**
  Parameter: NOEC (ETHANOL; CAS No.: 64-17-5)
  Species: Daphnia
  Evaluation parameter: Chronic (long-term) daphnia toxicity
  Effective dose: 2 – 9.6 mg/l
  Exposure time: 10 d
Parameter: NOEC (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species: Brachydanio rerio (zebra-fish)
Evaluation parameter: Chronic (long-term) fish toxicity
Effective dose: > 100 mg/l
Exposure time: 21 d
Method: OECD 204
Parameter: NOEC (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species: Daphnia magna (Big water flea)
Evaluation parameter: Chronic (long-term) daphnia toxicity
Effective dose: 100 mg/l
Exposure time: 21 d
Method: OECD 211
Parameter: NOEC (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
Species: Algae
Effective dose: 286 mg/l
Exposure time 72 h
Method: OECD 201

- **Acute (short-term) algae toxicity**
  Parameter: EC50 (ETHANOL; CAS No.: 64-17-5)
  Species: Chlorella vulgaris
  Evaluation parameter: Acute (short-term) fish toxicity
  Effective dose: 675 mg/l
  Exposure time: 4 d
  Method: OECD 201
  Parameter: EC50 (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
  Species: Algae
  Effective dose: 1840 mg/l
  Exposure time: 72 h
  Method: OECD 201

- **Bacteria toxicity**
  Parameter: EC50 (ETHANOL; CAS No.: 64-17-5)
  Species: Bacteria toxicity
  Effective dose: 5.8 g/l
  Exposure time: 4 h

- **12.2 Persistence and degradability**
  According to the recipe, contains no AOX.

- **Biodegradation**
  Parameter: Biodegradation (ETHANOL; CAS No.: 64-17-5)
  Inoculum: Biodegradation
  Evaluation parameter: Aerobic
  Effective dose: ca. 84 %
  Exposure time: 20 d
  Evaluation: Readily biodegradable (according to OECD criteria).
  Parameter: Biodegradation (BUTYL CELLOSOLVE; CAS No.: 111-76-2)
  Inoculum: Biodegradation
  Effective dose: 88 %
  Exposure time: 20 d

- **12.3 Bioaccumulative potential**
  No indication of bioaccumulation potential.

- **12.4 Mobility in soil**
  No information available

- **12.5 Results of PBT and vPvB assessment**
  This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

- **12.6 Other adverse effects**
  No information available

- **12.7 Additional ecotoxicological information**
  After neutralisation, reduction in toxic effects is observed.
SECTION 13: Disposal considerations

The waste codes are recommendations based on the schedule use of this product. Owing to the user’s specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

- 13.1 Waste treatment methods
- Product/Packaging disposal
- Waste codes/waste designations according to EWC/AVV
  - Waste code product
    07 06 01* - aqueous washing liquids and mother liquors
    20 01 29* - detergents containing dangerous substances
- Waste code packaging
  15 01 02 - plastic packaging.
- Waste treatment options
- Appropriate disposal / Package
  Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner as the medium.
- 13.2 Additional information
  These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

SECTION 14: Transport information

- 14.1 UN number
  No dangerous goods in sense of this transport regulation.
- 14.2 UN proper shipping name
  No dangerous goods in sense of this transport regulation.
- 14.3 Transport hazard class(es)
  No dangerous goods in sense of this transport regulation.
- 14.4 Packing group
  No dangerous goods in sense of this transport regulation.
- 14.5 Environmental hazards
  No dangerous goods in sense of this transport regulation.
- 14.6 Special precautions for user
  None
SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - EU legislation
  - Other regulations (EU)
  - Restrictions of occupation
    Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
  - Labelling for contents according to regulation (EC) No. 648/2004
    None
  - National regulations
    AT: Labelling according to Austrian regulations (Chemikaliengesetz/ChemV).
    CH: Chemikalienverordnung (ChemV) and Chemikalien-Risikoreduktions-Verordnung (Chem RRV) are complied
  - Water hazard class (WGK)
    Class: 1 (Slightly hazardous to water) Classification according to VwVwS
  Other regulations, restrictions and prohibition regulations Betriebssicherheitsverordnung (BetrSichV)
    No flammable liquid according to BetrSichV.

SECTION 16: Other information

- 16.1 Indication of changes
  None
- 16.2 Abbreviations and acronyms
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  AOX: adsorbable organohalogens
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  CLP: Classification Labelling and Packaging (Regulation (EC) No. 1272/2008)
  EAK / AVV: europäischer Abfallschlüsselkatalog (European waste catalogue)
  EINECS: European Inventory of Existing Commercial Chemical Substances GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  IATA: International Air Transport Association
  ICAO: International Civil Aviation Organization
  IMDG: International Maritime Code for Dangerous Goods
  RCP: reciprocal calculation procedure
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  TRGS: Technische Regel für den Umgang mit Gefahrstoffen
  VbF: Verordnung über brennbare Flüssigkeiten
  VOC: volatile organic compound
  VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
  WGK: Wassergefährdungsklasse (water hazardous class)
· 16.3 Key literature references and sources for data
DGUV: GESTIS-Stoffdatenbank
ECHA: Classification And Labelling Inventory
ECHA: Registered Substances
ECHA: Registered Substances
EG-Sicherheitsdatenblätter der Vorlieferanten
ESIS: European Chemical Substances Information System
GDL: Gefahrstoffdatenbank der Länder
UBA Rigoletto: Wassergefährdende Stoffe

· 16.4 Classification for mixtures and used evaluation method according to regulation (EC) Es
No information available.

· Relevant H- and EUH-phrases (Number and full text)
H225 Highly flammable liquid and vapour.
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation

· 16.6 Training advice
None

· 16.7 Additional information
None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.