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

1.1 Product identifier

Power Cleaner KST 2.0
Unique Formula Identifier : H7A0-D0WF-T005-JRFE

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

Relevant identified uses

PC 35 - Washing and cleaning products

Sectors of use [SU]

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Industrial uses

1.3 Details of the supplier of the safety data sheet

Supplier

Bio-Circle Surface Technology AG

Street : Aahusweg 16
Postal code/City : 6403 Küssnacht am Rigi
Telephone : 0041 41 878 1166
Telefax : 0041 41 878 1347
Information contact : service@bio-circle.ch

1.4 Emergency telephone number

+41 (0)442515151
Schweizerisches Toxikologisches Informationszentrum, 145

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Corrosion (GHS05)

Signal word

Danger

Hazard components for labelling

METHANESULPHONIC ACID ; CAS No. : 75-75-2
ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8

Hazard statements

H314	Causes severe skin burns and eye damage.

Precautionary statements

P280	Wear protective gloves and eye/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or

shower].

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/....

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

METHANESULPHONIC ACID ; REACH No. : 01-2119491166-34-XXXX ; EC No. : 200-898-6; CAS No. : 75-75-2

Weight fraction : ≥ 3 - < 5 %

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H312 STOT SE 3 ; H335

ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; REACH No. : Polymer ; CAS No. : 68603-25-8

Weight fraction : ≥ 1 - < 3 %

Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Acute Tox. 4 ; H302

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

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. Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation

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

Protect uninjured eye. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage.

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

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide , Carbon dioxide (CO2) , Sulphur oxides

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings. Move undamaged containers from immediate hazard area if it can be done safely. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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.

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. Avoid: Generation/formation of mist

7.2 Conditions for safe storage, including any incompatibilities

Keep/Store only in original container. Protect against : Frost .

Requirements for storage rooms and vessels

P406 - Store in a corrosion resistant/... container with a resistant inner liner.

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

None

DNEL-/PNEC-values

DNEL/DMEL

METHANESULPHONIC ACID ; CAS No. : 75-75-2

Limit value type :	DNEL Consumer (local)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	0,42 mg/m^3
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	1,44 mg/m^3

Limit value type :	DNEL Consumer (systemic)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	8,33 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	8,33 mg/kg bw/day
Limit value type :	DNEL worker (local)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	0,7 mg/m^3
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	6,76 mg/m^3
Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	19,44 mg/kg

PNEC

METHANESULPHONIC ACID ; CAS No. : 75-75-2

Limit value type :	PNEC (Aquatic, freshwater)
Limit value :	0,012 mg/l
Limit value type :	PNEC (Aquatic, intermittent release)
Limit value :	0,12 mg/l
Limit value type :	PNEC (Aquatic, marine water)
Limit value :	0,0012 mg/l
Limit value type :	PNEC (Sediment, freshwater)
Limit value :	0,0444 mg/kg dw
Limit value type :	PNEC (Sediment, marine water)
Limit value :	0,00444 mg/kg dw
Limit value type :	PNEC (Soil)
Limit value :	0,00183 mg/kg dw
Limit value type :	PNEC (Sewage treatment plant)
Limit value :	100 mg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Wear suitable safety goggles in case of splash.

Suitable eye protection

EN 166.

Skin protection

Hand protection

Suitable gloves type : EN 374.
Suitable material : NBR (Nitrile rubber)

Breakthrough time : 480 min.

Thickness of the glove material : 0.4 mm

Remark : The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection

Usually no personal respirative protection necessary.

General information

Do not put any product-impregnated cleaning rags into your trouser pockets. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. P362+P364 - Take off contaminated clothing and wash it before reuse. P264 - Wash hands thoroughly after handling.

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

Physical state : Liquid

Colour : colourless

Odour

characteristic

Safety characteristics

Melting point/freezing point :	(1013 hPa)	approx.	0	°C	
Initial boiling point and boiling range :	(1013 hPa)	<	100	°C	
Flash point :			none		DIN EN ISO 13736
Auto-ignition temperature :			none		
Flammability :			non-flammable		
Vapur pressure :	(20 °C)	<	24	hPa	Calculated
Density :	(20 °C)	approx.	1	g/cm³	
Water solubility :	(20 °C)			Weight-%	
pH :	(20 °C)	approx.	0,8		
Cinematic viscosity :	(20 °C)	<	30	mm²/s	
Relative vapour density :	(20 °C)		not determined		
Maximum VOC content (EC) :			1	Weight-%	
Maximum VOC content (Switzerland) :			1	Weight-%	
Taxable VOC content (Switzerland) :			1	Weight-%	
Corrosive to metals :			GHS/CLP criteria are not met.		

9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Exothermic reaction with: Alkali (lye).

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials
No information available.

10.6 Hazardous decomposition products
No known hazardous decomposition products.
Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Acute oral toxicity

Parameter :	ATEmix
Exposure route :	Oral
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Exposure route :	Oral
Species :	Rat
Effective dose :	1158 mg/kg
Method :	OECD 401
Parameter :	LC50 (ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8)
Exposure route :	Oral
Species :	Rat
Effective dose :	616 mg/kg

Acute dermal toxicity

Parameter :	ATEmix
Exposure route :	Dermal
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	>= 1000 mg/kg
Method :	OECD 402
Parameter :	LD50 (ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	5660 mg/kg

Acute inhalation toxicity

Parameter :	ATEmix
Exposure route :	Inhalation
Effective dose :	> 20 mg/m^3

Corrosion

Skin corrosion/irritation

Causes severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation

No further relevant information available.

Sensitisation to the respiratory tract

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No further relevant information available.

Germ cell mutagenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

STOT-single exposure

No further relevant information available.

STOT-repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Other adverse effects

Has degreasing effect on the skin.

Additional information

Preparation not tested. The statement is derived from the properties of the single components.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Species :	Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	73 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8)
Species :	Pimephales promelas (fathead minnow)
Effective dose :	13,3 mg/l
Exposure time :	96 h

Chronic (long-term) fish toxicity

Parameter :	NOEC (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Species :	Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	56 mg/l
Exposure time :	96 h
Method :	OECD 203

Acute (short-term) toxicity to crustacea

Parameter :	EC50 (METHANESULPHONIC ACID ; CAS No. : 75-75-2)

Species :	Daphnia magna (Big water flea)
Evaluation parameter :	Acute (short-term) daphnia toxicity
Effective dose :	70 mg/l
Exposure time :	48 h
Method :	OECD 202
Parameter :	EC50 (ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8)
Species :	Daphnia magna (Big water flea)
Effective dose :	12,3 mg/l
Exposure time :	48 h

Acute (short-term) toxicity to algae and cyanobacteria

Parameter :	EC50 (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Species :	Pseudokirchneriella subcapitata
Evaluation parameter :	Acute (short-term) algae toxicity
Effective dose :	7,2 - 20 mg/l
Exposure time :	72 h
Method :	OECD 201

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

Parameter :	NOEC (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Species :	Pseudokirchneriella subcapitata
Evaluation parameter :	Acute (short-term) algae toxicity
Effective dose :	5,8 mg/l
Exposure time :	96 h
Method :	OECD 201

Toxicity to microorganisms

Parameter :	EC50 (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Species :	Bacteria toxicity
Effective dose :	> 1000 mg/l
Exposure time :	30 min
Parameter :	Bacteria toxicity (ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8)
Effective dose :	220 - 770 mg/l
Exposure time :	16 h

12.2 Persistence and degradability

According to the recipe, contains no AOX. The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

Biodegradation

Parameter :	DOC reduction (METHANESULPHONIC ACID ; CAS No. : 75-75-2)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	90 - 100 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 301A
Parameter :	Biodegradation (ALCOHOLS, C8-10, ETHOXYLATED PROPOXYLATED ; CAS No. : 68603-25-8)
Inoculum :	Degree of elimination
Degradation rate :	> 70 %
Test duration :	28 D
Evaluation :	Readily biodegradable (according to OECD criteria).
Method :	OECD 302B

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No information available.

12.8 Additional ecotoxicological information

After neutralisation, reduction in toxic effects is observed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Ordinance on the avoidance and disposal of waste (ADWO) SR 814.600.

Before intended use

Waste code according to the lists for the movement of waste

07 06 01S (Aqueous washing liquids and mother liquors)
20 01 29S (Detergents containing hazardous substances)

Other disposal recommendations

Dispose of waste according to applicable legislation. Dispose of contents/ container to an approved waste disposal plant. Contaminated packages must be completely emptied and can be re-used following proper cleaning (Water (with cleaning agent)). Handle contaminated packages in the same way as the substance itself.

13.2 Additional information

The allocation of waste identity numbers/waste descriptions must be carried out according to the VVEA, specific to the industry and process.

SECTION 14: Transport information

14.1 UN number

UN 3265

14.2 UN proper shipping name

Land transport (ADR/RID)

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (METHANESULPHONIC ACID)

Sea transport (IMDG)

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (METHANESULPHONIC ACID)

Air transport (ICAO-TI / IATA-DGR)

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (METHANESULPHONIC ACID)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) :	8
Classification code :	C3
Hazard identification number (Kemler No.) :	80
Tunnel restriction code :	E
Special Provisions :	LQ 5 l · E 1
Hazard label(s) :	 8

Sea transport (IMDG)

Class(es) :	8

EmS-No. : F-A / S-B
Special Provisions : LQ 5 L · E 1 · IMDG-Code segregation group 1 - Acids
Hazard label(s) :

8

Air transport (ICAO-TI / IATA-DGR)
Class(es) : 8
Hazard label(s) :

8

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 3, 75

Restrictions of occupation

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Other regulations (EU)

Labelling for contents according to regulation (EC) No. 648/2004

< 5 % non-ionic surfactants
< 5 % anionic surfactants

National regulations

Other regulations, restrictions and prohibition regulations

Switzerland

Chemicals Ordinance, ChemO (SR 813.11)
Chemical Risk Reduction Ordinance, ORRChem (SR 814.81)

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

01. Product identifier · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] - Hazard components for labelling

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die Beförderung gefährlicher Güter auf der Straße)
AOX: adsorbierbare organisch gebundene Halogene
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
CAS: Chemical Abstracts Service (Unterabteilung der American Chemical Society)
CLP: Verordnung (EG) Nr. 1272/2008 über die Einstufung, Kennzeichnung und Verpackung von Stoffen und Gemischen (Classification Labelling and Packaging)
EAK / AVV: europäischer Abfallartenkatalog / Abfallverzeichnis-Verordnung
ECHA: Europäische Chemikalienagentur (European Chemicals Agency)
EINECS: : Altstoffverzeichnis (European Inventory of Existing Commercial Chemical Substances)
GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien (Globally Harmonized System of Classifiaction and Labelling of Chemicals)
IATA: Internationale Luftverkehrs-Vereinigung (International Air Transport Association)
ICAO: Internationale Zivilluftfahrtorganisation (International Civil Aviation Organization)
IMDG: Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffverkehr (International Maritime Code for Dangerous Goods)
RID: Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr (Règlement concernant le transport international ferroviaire de marchandises dangereuses)
TRGS: Technische Regel für den Umgang mit Gefahrstoffen
VbF: Verordnung über brennbare Flüssigkeiten
VOC: flüchtige organische Verbindung (volatile organic compound)
VVEA: Verordnung über die Vermeidung und die Entsorgung von Abfällen
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

16.3 Key literature references and sources for data

DGUV: GESTIS-Stoffdatenbank
ECHA: Classification And Labelling Inventory
ECHA: Pre-registered Substances
ECHA: Registered Substances
EC_Safety Data Sheet of Suppliers
ESIS: European Chemical Substances Information System
GDL: Gefahrstoffdatenbank der Länder
UBA Rigoletto: Wassergefährdende Stoffe
Regulation (EC) No. 1907/2006 of the European Parliament and of the Council
|-> COMMISSION REGULATION (EU) 2020/878 of 18 June 2020
Regulation (EC) No. 1272/2008 of the European Parliament and of the Council

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
Evaluation :
Skin Corr. 1B : Calculation method.
Eye Dam. 1 : Calculation method.

16.5 Relevant H- and EUH-phrases (Number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory 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.