SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier
Name: Flux Remover 4

1.2 Relevant identified uses of the substance or mixture and uses advised against
Intended for professional and consumer use as cleaning preparation for the electrotechnical industry.

1.3 Details of the supplier of the safety data sheet
Producer: DCT Czech s.r.o.
Tovární 85
CZ-679 21 Černá Hora
www.dctchemicals.com
Tel.: +420 515 539 762 available on business days from 7:00 am to 3:00 pm
e-mail: info@dctchemicals.com

1.4 Emergency Telephone Number:
Toxicological Information Centre: Na Bojišti 1, CZ-120 00 Praha 2
Tel.: +420 224 919 2 93 or +420 224 915 402 - available non-stop

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification pursuant to Regulation No. **1272/2008/EC**
The mixture is classified as
Flammable Aerosol 1 H222
Skin Irritant 2 H315
STOT SE 3 (toxic for specific target organs – single exposure , category 3, effects of a narcotic) H336
Aquatic Chronic 2 (dangerous to the environment – chronically, category 2) H411

2.2 Label elements
The mixture must be in accordance with Regulation 1272/2008/EC marked as follows:
Marking with warning symbol:

Signal word**: Danger**

Label information: **Contains propane and hydrocarbons C7 – C9 (isoalkanes)**
Contents under pressure: do not expose to sunshine and temperatures above 50°C. Do not puncture or incinerate container even if empty.
Do not spray into open fire or on hot objects unless the aerosol spray is constructed for this purpose.

H-sentences: **H222 Extremely flammable aerosol.**
H315 Irritant to the skin.
H336 May cause drowsiness and dizziness.
H411 Toxic for aquatic organisms with long-term adverse effects.

P-sentences: **P102 Keep out of the reach of children.**
P273 Avoid release to the environment.
P243 Take precautionary measures against static discharges.
P260 Do not breathe vapour and spray.
P262 Avoid contact with skin.
P271 Use only outdoors or in a well-ventilated area.

2.3 Other hazards
The product may cause irritation to the eyes.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

3.2 a) Classification of hazardous components pursuant to Regulation No. 1272/2008/EC (CLP)

Name of the hazardous component	Content in %	Index No.	Reg. No.	Classification Category	H-sentences *)	Signal word	Warning symbol
hydrocarbons, C7 – C9, isoalkanes	32	921-728-3		Flam.Liq. 2 Skin Irrit. 2 STOT SE 3 Asp. Tox. 1 Aquatic Chronic 2	H225 H315 H336 H304 H411	Danger	GHS02+08+07 +09
Isopropylalcohol	4	200-661-7	603-117-00-0	Flam.Liq. 2 Eye Irrit. 2 STOT SE 3	H225 H319 H336	Danger	GHS02+07
1-methoxypropane-2-ol	4	203-539-1	603-064-00-3	Flam.Liq. 3 STOT SE 3	H226 H336	Warning	GHS02+07
propane	5-6	200-827-9	601-003-00-5	Flam.Gas 1 Press.Gas	H220	Danger	GHS02+04
butane	50-55	203-448-7	601-004-00-0	Flam.Gas 1 Press.Gas	H220	Danger	GHS02+04

***)** Note: For full wording of H-sentences see Point 16 of the Safety Data Sheet

b) Classification of hazardous components pursuant to Directive No. 67/548/EEC

Name of hazardous component	Content in %	Reg. No.	EC No.	CAS No.	Classification and R-sentences *)	Concentration Limits
Hydrocarbons, C7 – C9, isoalkanes	32		921-728-3		F R11 Xi R38 Xn R65 R67 N R51/53	c >= 20% c >= 25%
Isopropyl alcohol	4		200-661-7	67-63-0	F R11 Xi R36 R67	c >= 20%
1-methoxypropane-2-ol	4		203-539-1	107-98-2	R10 R67	
propane	5.6.2013		200-827-9	74-98-6	F+ R12	
butane	50-55		203-448-7	106-97-8	F+ R12	

***)** Note: For full wording of R-sentences see Point 16 of the Safety Data Sheet

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
When inhaled: move the afflicted to the fresh air, keep him calm, prevent hypothermia.
Contaminated skin: remove the contaminated dress and rinse off the skin with warm water and soap.
If ingested: not possible as this is an aerosol.
Contaminated eyes: rinse off the affected eye wide open from the inner corner to the outer one and also under the lids with water, find medical advice if irritation lasts.
4.2. Most important symptoms and effects, both acute and delayed
Irritated eyes, headache.
4.3. Indication of any immediate medical attention and special treatment needed
In case of health troubles, in case of doubts and if swallowed accidentally, please always contact the physician and provide him with information from this Safety Data Sheet.

SECTION 5: FIREFIGHTING MEASURES

5.1.Extinguishing media
Suitable extinctants: alcohol-resistant foam, water mist, carbon dioxide (CO_2), powder extinguisher, foam.
Unsuitable extinctants: direct water jet.
5.2 Special hazards arising from the substance or mixture
During the fire, toxic combustion products may develop.
5.3. Advice for firefighters
Use protective clothing and breathing apparatuses. Prevent the leakages of fire-extinguishing water into the environment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment - protective clothing, goggles and gloves. Secure outlet of vapours and admission of fresh air in closed rooms. No smoking, no manipulation with open fire. Remove all sources of ignition.

6.2 Environmental precautions
Prevent leaks to the environment.

6.3 Methods and material for containment and cleaning up
Let evaporate, wipe out.

6.4 Reference to other Sections
None.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Handle the packing, i.e. the pressurized container with care, do not heat, puncture or incinerate. Avoid contact with skin and the eyes. Use only in well-ventilated rooms with secured outlet of vapours and admission of fresh air.

7.2 Conditions for safe storage, including any incompatibilities
Store in well-ventilated rooms at temperatures from 5 to 25°C.

7.3 Specific end use(s)
Cleaning preparation for electrotechnical industry.

SECTION 8: EXPOSURE CONTROLS /PERSONAL PROTECTION

8.1 Control parameters
The product contains the following substances for which the following allowable exposition limits (AELs) and highest allowable concentrations (HACs) of chemical substances in the work environment air are stipulated.

name	content in %	CAS No.	AELs mg/m^3	HACs mg/m^3	Conversion factor to ppm	Note
isopropylalcohol	4	67-63-0	500	1000	-	-
1-methoxypropane-2-ol	to 32	107-98-2	270	550	0,27	D

Note D: Upon exposure the substance significantly permeates the skin.

8.2 Exposure controls

8.2.1 Reduction of employees exposure
General safety and hygienic measures. Do not eat, drink or smoke during the work. Wash hands before the break and after the work with warm water and soap, apply a regeneration cream.
Respiratory protection: if AELs are exceeded – half-mask with A-filter against organic solvents vapours.
Hands protection: protective gloves resistant to organic solvents. Necessary to respect the time of use recommended by the manufacturer.
Eyes protection: closed goggles.
Skin protection: cotton work dress.

8.2.2 Reduction of the environment exposure
Prevent leaks of the preparation to the sewage system, water and soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
Appearance and state (at 20 °C): clear aerosol and gas
Colour: clear
Odour: characteristic after hydrocarbons and isopropanol
Flashpoint (°C): under 10
Ignition temperature (°C): > 200
Class of risk: II
Explosibility ranges : upper range (%vol.): 6.3
lower range (% vol.): 0.7
Density (kg/l at 20°C): 0.8
PH value (at 20°C): not determined
Solubility (at 20°C) in water (g/l): soluble in a limited manner
Viscosity: not determined
Oxidation properties: does not show oxidation properties

9.2 Other Information
Content of organic solvents – VOC 0.99 kg/kg
Content of organic carbon total - TOC 0.61 kg/kg
Content of non-volatile substances 0.95% per volume

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Reacts with oxidation agents.

10.2 Chemical stability
Mixture stable when used professionally for the intended purposes.

10.3 Possibility of hazardous reactions
Explosive reaction with oxidation agents.
10.4 Conditions to be avoid
Prevent formation of concentrations above the explosion limit and avoid high temperatures, open fire and sources of ignition.
10.5 Incompatible materials
Oxidation agents
10.6 Hazardous decomposition products
Toxic substances may form at high temperatures.

SECTION 11: TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects
11.1.1 Acute toxicity of the hazardous substance contained in the preparation

Substance Name	CAS	LD50 oral rat	LC50 inhal. rat	LD5 derm. rabbit
hydrocarbons, C7 – C9, isoalkanes		> 5000 mg/kg	21 mg/l 6 hour	> 2000 mg/kg
isopropylalcohol	67-63-0	> 2000 mg/kg		> 2000 mg/kg
1-methoxypropane-2-ol	111-76-2	4016 mg/kg		> 2000 mg/kg

Further toxicological information: none
11.1.2. Senzibilization: preparation does not contain any senzibilizing substances.
11.1.3. Carcinogenicity: preparation does not contain any carcinogenic substances.
11.1.4. Mutagenity: preparation does not contain substances classified as mutagenes.
11.1.5. Toxicity for reproduction: preparation does not contain substances classified as toxic for reproduction.

SECTION 12: ECOLOGICAL INFORMATION
12.1 Toxicity: Ecotoxicity of the preparation was not tested. The preparation contains hydrocarbons, C7 – C9, isoalkanes, therefore, it is toxic for aquatic organisms and may provoke long-term adverse effects in the aquatic environment.
12.2 Persistence and degradability: the mixture is biodegradable.
12.3 Bioaccumulative potential: unknown.
12.4 Mobility in soil: unknown.
12.5 Results of PBT and vPvB assessment: components and mixture are not PBT or vPvB.
12.6 Other adverse effects: the preparation does not show any anomalies in the biological water treatment plants if used in a common manner.

SECTION 13: DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
Residues of the product, polluted materials and empty non-returnable polluted containers must be liquidated by the waste producer in accordance with Act No. 185/2001 Coll., on waste and amendment to some other acts, and Act No. 477/2001 Coll. on packing and amendments to some other acts.
The used and fully emptied packing must be disposed at the collection point of waste containers.
Designation of waste under the Waste Catalogue: 15 01 11* Metal containers containing hazardous filler (e.g. asbestos) including empty pressurized containers .
Collect residues of the product devalued by use in marked packs and hand over for liquidation to the person authorized to handle dangerous waste.
Designation of waste under the Waste Catalogue: 16 05 04* Gasses in pressurized containers (including halons) containing hazardous substance.

SECTION 14: TRANSPORT INFORMATION
14.1 UN number: UN 1950
14.2 UN proper shipping name: Aerosols, flammable
14.3 Transport hazard class(es): 2
14.4 Packing group:
14.5 Environmental hazards: Hazardous to the environment
14.6 Special precautions for user: None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

SECTION 15: REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulation of European Parliament and Council (EC) No.1907/2006,on registration, evaluation, approvals and restrictions of chemical substances, on establishment of European Agency for chemical substances and implementing and related regulations. ▪ Act No.185/2001 Coll., on waste and amendments to some other acts, Decree No. 381/2001 Coll., Waste Catalogue ▪ Decree No. 383//2001 Coll., on details of handling waste ▪ Act No. 258/2000 Coll., on public health ▪ Government Directive No. 178/2001 Coll., stipulating the conditions of health protection of employees at work ▪ Decree No. 432/2003 Coll., stipulating conditions for the classification of work to categories, limit values of indicators of the biological exposure tests and requirements as to the reporting of works with asbestos and biological agents ▪ Act No. 477/2001 Coll., on packing, as amended ▪ Decree No. 115/2002 Coll., on details of handling the packing ▪ Act No. 59/2006 Coll., on prevention of serious accidents ▪ Communication No. 33/2005 Coll. (ADR), Communication No. 34/2005 Coll. (RID)
15.2. Chemical safety assessment
The assessment of chemical safety was not elaborated for the product.

SECTION 16: OTHER INFORMATION

16.1 The list and full wording of R sentences and H sentences used as specified in Points:

3.2 a)
H225 Highly flammable liquid and vapours.
H226 Flammable liquid and vapours.
H304 May be fatal if swallowed and enters airways.
H315 Irritant to the skin.
H319 May cause serious irritation to the eyes
H336 May cause drowsiness or dizziness.
H411 Toxic for aquatic organisms, with long-term effects.

3.2 b)
R 10 Flammable.
R 11 Extremely flammable.
R 36 Irritant to the eyes.
R 38 Irritant to the skin.
R 51/53 Toxic for aquatic organisms, may provoke long-term adverse effects in the aquatic environment .
R 65 Harmful: may cause lung damage if swallowed.
R 67 Vapours may cause drowsiness and dizziness.

16.2 Changes against the previous issue none.

16.3 Sources of the most important data used to prepare this Safety Data Sheet:
Safety Data Sheets of raw materials from suppliers, Database ECB ESIS :EINECS/ELINCS (European Chemical Bureau – European Information System of Chemical Substances) ChemDat Merck, Fluka, Database DANELA Ekoline s.r.o. Brno.

16.4 Instruction for Training:
A corporate entity or a private entrepreneur manipulating with this chemical preparation must get acquainted with details stated in this Safety Data Sheet and must be trained in the area of the safety rules.

16.5 Notice: This Safety Data Sheet was prepared based on Regulation of the European Parliament and Council (EC) No. 1907/2006. The classification was done pursuant to the conventional calculation method. It contains data necessary to secure the safety and protection of health at work and the living environment protection. The data provided correspond to the current state of knowledge and experience and they are in accordance with the valid legal regulations. They cannot be deemed to be the guarantee of suitability and usability of the product for a given specific application.

16.6 Contact Point for Technical Information:

Specialized help line for the preparation use: +420 515 539 762 e-mail: info@dctchemicals.com
www.dctchemicals.com