

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31 and 2020/878/
EU

Printing date 05.06.2025

Version number 8 (replaces version 7)

Revision: 05.06.2025

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

1.1 Product identifierTrade name: **Flux thinner VF1**UFI: *WDF8-X04R-P00U-A830***1.2 Relevant identified uses of the substance or mixture and uses advised against***No further relevant information available.***Application of the substance / the mixture** *Solvents***1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

FELDER GMBH

Im Lipperfeld 11

D-46047 Oberhausen

Tel.: 0208/8 50 35-0

Fax.: 0208/2 60 80

<http://www.felder.de>e-mail: info@felder.de**Further information obtainable from:***lab**(mo-thu. 8:00 a.m. - 4:00 p.m./ fr. 8:00 a.m. - 1:00 p.m.)*email: mprobst@felder.de**1.4 Emergency telephone number:***24-hour emergency information:**Giftnotruf Berlin, counselling in German and English*

Phone: (030) 30686 700

EuPCS: PC-TEC-24

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

GHS07

*Eye Irrit. 2 H319 Causes serious eye irritation.***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**

GHS02 GHS07

Signal word *Danger***Hazard statements***H225 Highly 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.**P241 Use explosion-proof [electrical/ventilating/lighting] equipment.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.*

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Labelling of packages where the contents do not exceed 125 ml

Hazard pictograms



GHS02 GHS07

Signal word *Danger*Hazard statements *Void*

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: *Not applicable.*vPvB: *Not applicable.*

Determination of endocrine-disrupting properties

78-93-3 | *butanone*

List II

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description:

*Solvent mixture**Mixture: consisting of the following components.*

Dangerous components:

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43	<i>ethanol</i>	<i>Flam. Liq. 2, H225 Eye Irrit. 2, H319</i>	<i>50-100%</i>
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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: *Take affected persons out into the fresh air.*After inhalation: *Supply fresh air; consult doctor in case of complaints.*

After skin contact:

*Immediately rinse with water.**If skin irritation continues, consult a doctor.*

After eye contact:

*Protect unharmed eye.**Seek medical treatment.*

After swallowing:

*Rinse out mouth and then drink plenty of water.**Seek medical treatment.*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:

*Alcohol resistant foam**CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.*For safety reasons unsuitable extinguishing agents: *Water with full jet*5.2 Special hazards arising from the substance or mixture *No further relevant information available.*

5.3 Advice for firefighters

Protective equipment:

Do not inhale explosion gases or combustion gases.

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Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: 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).

Ensure adequate ventilation.

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 Ensure that suitable extractors are available on processing machines

Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

Do not spray onto a naked flame or any incandescent material.

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 in a cool location.**Information about storage in one common storage facility:** Store away from foodstuffs.

Further information about storage conditions:

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Storage class: 3**7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

WES (Australia) Long-term value: 1880 mg/m³, 1000 ppmAGW (Germany) Long-term value: 380 mg/m³, 200 ppm
4(II);DFG, YWEL (Great Britain) Long-term value: 1920 mg/m³, 1000 ppm

OEL (Ireland) Short-term value: 1000 ppm

Regulatory information

WES (Australia): Workplace exposure standards for airborne contaminants

AGW (Germany): TRGS 900

WEL (Great Britain): EH40/2020

OEL (Ireland): 2024 CoP for the Safety, Health and Welfare at Work

recommended monitoring procedures in accordance with 2020/878/EU no. 8.1.2:

64-17-5 ethanol: MétroPol Fiche 017, Alcool éthylique(F); DFG (D) Lösungsmittelgemische Methode Nr. 6(D,E); BIA 7330 ethanol(D)

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

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Appropriate engineering controls:

Ensure adequate ventilation.

Explosion protection required. Remove all open flames. Remove ignition sources. Avoid sparks.

Take precautionary measures against electrostatic charging. Ground all devices.

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Remove the fumes by means of suitable suction devices.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.

Wash hands before breaks and at the end of work.

Respiratory protection:

Filter AP2

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A

Hand protection

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Butyl rubber, BR

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. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Recommended thickness of the material: ≥ 0.7 mm

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions.

Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Value for the permeation: Level ≤ 6

Eyeface protection



Tightly sealed goggles

Body protection: Solvent resistant protective clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Colour:	Colourless
Odour:	Alcohol-like
Odour threshold:	Not determined.
Melting point/freezing point:	-114.5 °C
Boiling point or initial boiling point and boiling range	78 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	3.5 Vol %
Upper:	15 Vol %
Flash point:	13 °C
Auto-ignition temperature:	425 °C
Decomposition temperature:	Not determined.
pH (100 g/l) at 20 °C	~7
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water at 20 °C:	1 g/l
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	59 hPa
Density and/or relative density	
Density at 20 °C:	0.79 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.

9.2 Other information

Appearance:

Form: Fluid

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Important information on protection of health and environment, and on safety.**Ignition temperature:***Product is not selfigniting.***Explosive properties:***Product is not explosive. However, formation of explosive air/vapour mixtures are possible.***Solvent content:****Organic solvents:**

98.0 %

Water:

2.0 %

VOC (EC)

97.99 %

Change in condition**Evaporation rate***Not determined.***Information with regard to physical hazard classes****Explosives***Void***Flammable gases***Void***Aerosols***Void***Oxidising gases***Void***Gases under pressure***Void***Flammable liquids***Highly flammable liquid and vapour.***Flammable solids***Void***Self-reactive substances and mixtures***Void***Pyrophoric liquids***Void***Pyrophoric solids***Void***Self-heating substances and mixtures***Void***Substances and mixtures, which emit flammable****gases in contact with water***Void***Oxidising liquids***Void***Oxidising solids***Void***Organic peroxides***Void***Corrosive to metals***Void***Desensitised explosives***Void***SECTION 10: Stability and reactivity****10.1 Reactivity** *No further relevant information available.***10.2 Chemical stability****Thermal decomposition / conditions to be avoided:** *To avoid thermal decomposition do not overheat.***10.3 Possibility of hazardous reactions***Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.**Reacts with acids, alkalis and oxidising agents.**Develops readily flammable gases/fumes.***10.4 Conditions to avoid** *No further relevant information available.***10.5 Incompatible materials:** *No further relevant information available.***10.6 Hazardous decomposition products:***Flammable gases/vapours**Carbon monoxide and carbon dioxide***SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity** *Based on available data, the classification criteria are not met.***LD/LC50 values relevant for classification:****64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

Primary irritant effect:**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.***Germ cell mutagenicity** *Based on available data, the classification criteria are not met.*

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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** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**11.2 Information on other hazards****Endocrine disrupting properties**

78-93-3 | butanone

List II

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**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****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.**12.7 Other adverse effects****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.

European waste catalogue

14 06 03*: other solvents and solvent mixtures

HP 3: flammable

HP 4: irritant - skin irritation and eye damage

Cleaned sales packaging:

15 01 02: plastic packaging

outer packaging:

15 01 01: Paper and cardboard packaging

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Alcohol**SECTION 14: Transport information****14.1 UN number or ID number**

ADR, IMDG, IATA

UN1170

14.2 UN proper shipping name

ADR

1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IMDG

ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

IATA

ETHANOL SOLUTION

14.3 Transport hazard class(es)

ADR, IMDG, IATA

**Class**

3 Flammable liquids.

Label

3

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14.4 Packing group
ADR, IMDG, IATA II

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
Warning: Flammable liquids.

Hazard identification number (Kemler code): 33

EMS Number: F-E, S-E

Stowage Category A

14.7 Maritime transport in bulk according to IMO instruments
Not applicable.

Transport/Additional information:

ADR
Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

Transport category 2

Tunnel restriction code D/E

IMDG
Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation":
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I *None of the ingredients is listed.*

Seveso category P5c FLAMMABLE LIQUIDS

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 (EU) 2019/1021 on persistent organic pollutants (POP) *None of the ingredients are included.*

REGULATION (EC) No 1907/2006 ANNEX XVII *Conditions of restriction: 3*

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

78-93-3 <i>butanone</i>	3
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Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

78-93-3 <i>butanone</i>	3
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National regulations:

Information about limitation of use: *Employment restrictions concerning juveniles must be observed.*

Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

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

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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.

Reasons for changes:

25.09.2015: adaption chapter 1, 8, 15 Regulation 453/2010/EC, 830/2015/EU, 2012/18/EU

11.07.2017: chapter 13

21.11.2018: chapter 8.1

29.12.2020: chapter 1, 13, 15, 16

06.12.2021: chapter 2, 3, 15

03.02.2025: chapter 2, 3

05.06.2025: chapter 1, 13, 15

Information referred to in Annex I, point 1.3.4.2 of Regulation 1272/2008/EC:**Relevant phrases***H225 Highly flammable liquid and vapour.**H319 Causes serious eye irritation.***Contact:** Dr. M. Probst**Version number of previous version: 7****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)**IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)**ICAO: International Civil Aviation Organisation**ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)**ADR: Accord relatif au transport international 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)**VOC: Volatile Organic Compounds (USA, EU)**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**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2***Safety data sheet SD3056**