

Safety data sheet

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

Printing date 20.02.2026

Version number 8 (replaces version 7)

Revision: 20.02.2026

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

1.1 Product identifierTrade name: **flux thinner VF2**

UFI: 6GF8-E0U5-000A-0KP2

**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.: +49 (0)208/ 85035-0

Fax.: +49 (0)208/ 26080

<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-21

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.

STOT SE 3 H336 May cause drowsiness or dizziness.

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-determining components of labelling:**

propan-2-ol

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Contd. on page 2)

— EU —

Safety data sheet

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

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Trade name: flux thinner VF2

(Contd. of page 1)

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.*

P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*

P405 *Store locked up.*

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-determining components of labelling:

propan-2-ol

Hazard statements *Void*

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: *Not applicable*

vPvB: *Not applicable*

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description:

Solvent mixture

Mixture: consisting of the following components.

Dangerous components:

CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0 Reg.nr.: 01-2119457558-25	<i>propan-2-ol</i> <i>Flam. Liq. 2, H225</i> <i>Eye Irrit. 2, H319; STOT SE 3, H336</i>	50-100%
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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 wash with water and soap and rinse thoroughly.

Generally the product does not irritate the skin.

After eye contact:

Protect unharmed eye.

Seek medical treatment.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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

Headache

Dizziness

Nausea

Unconsciousness

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed or in case of vomiting, danger of entering the lungs.

(Contd. on page 3)

EU

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 EU

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Trade name: flux thinner VF2

(Contd. of page 2)

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.

5.2 Special hazards arising from the substance or mixture *No further relevant information available.*

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Dilute with plenty of water.

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.

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

Keep receptacles tightly sealed.

Ensure that suitable extractors are available on processing machines

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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.

Store away from flammable substances.

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.*

(Contd. on page 4)

— EU —

Safety data sheet

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

Printing date 20.02.2026

Version number 8 (replaces version 7)

Revision: 20.02.2026

Trade name: flux thinner VF2

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

WES (Australia)	Short-term value: 1230 mg/m ³ , 500 ppm Long-term value: 983 mg/m ³ , 400 ppm
AGW (Germany)	Long-term value: 500 mg/m ³ , 200 ppm 2(II);DFG, Y
WEL (Great Britain)	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
OEL (Ireland)	Short-term value: 400 ppm Long-term value: 200 ppm Skin

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:

67-63-0 propan-2-ol: BIA 8415(D), MétroPol Fiche 077 Alcools en C3 à C8(F), MTA/MA-016/A89(ESP), DFG (D, E)
Solvent mixtures 6

Ingredients with biological limit values:

67-63-0 propan-2-ol

BGW (Germany)	25 mg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton
	25 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Aceton

Regulatory information BGW (Germany): TRGS 903

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.

Remove the fumes by means of suitable suction devices.

Ensure adequate ventilation.

Explosion protection equipment required. Extinguish all open flames. Remove sources of ignition. avoid sparks.

Take measures to prevent electrostatic charging. Ground all devices.

Removing the fumes by 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.

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:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter AP2

Hand protection



Protective gloves

(Contd. on page 5)

— EU —

Safety data sheet

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

Printing date 20.02.2026

Version number 8 (replaces version 7)

Revision: 20.02.2026

Trade name: flux thinner VF2

(Contd. of page 4)

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

Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

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: ≥ 0.4 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

Eye/face 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:	Clear
Odour:	Alcohol-like
Odour threshold:	Not determined
Melting point/freezing point:	-89.5 °C
Boiling point or initial boiling point and boiling range	82 °C
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	2 Vol %
Upper:	12 Vol %
Flash point:	12 °C
Auto-ignition temperature:	425 °C
Decomposition temperature:	Not determined
pH	Neutral
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:	43 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

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:

97.0 %

Water:

3.0 %

VOC (EC)

97.00 %

(Contd. on page 6)

EU —

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31 and 2020/878/
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Printing date 20.02.2026

Version number 8 (replaces version 7)

Revision: 20.02.2026

Trade name: flux thinner VF2

(Contd. of page 5)

Change in conditionEvaporation rate *Not determined***Information with regard to physical hazard classes**

Explosives	<i>Void</i>
Flammable gases	<i>Void</i>
Aerosols	<i>Void</i>
Oxidising gases	<i>Void</i>
Gases under pressure	<i>Void</i>
Flammable liquids	<i>Highly flammable liquid and vapour.</i>
Flammable solids	<i>Void</i>
Self-reactive substances and mixtures	<i>Void</i>
Pyrophoric liquids	<i>Void</i>
Pyrophoric solids	<i>Void</i>
Self-heating substances and mixtures	<i>Void</i>
Substances and mixtures, which emit flammable gases in contact with water	<i>Void</i>
Oxidising liquids	<i>Void</i>
Oxidising solids	<i>Void</i>
Organic peroxides	<i>Void</i>
Corrosive to metals	<i>Void</i>
Desensitised explosives	<i>Void</i>

SECTION 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 and stored according to specifications.***10.3 Possibility of hazardous reactions***Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.**Forms 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:***Carbon monoxide and carbon dioxide**Flammable gases/vapours***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:****67-63-0 propan-2-ol**

Oral	LD50	5,045 mg/kg (rat)
Dermal	LD50	12,800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 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.***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***May cause drowsiness or dizziness.***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.*

(Contd. on page 7)

— EU —

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31 and 2020/878/
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Version number 8 (replaces version 7)

Revision: 20.02.2026

Trade name: flux thinner VF2

(Contd. of page 6)

11.2 Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

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**

The product does not contain substances with endocrine disrupting properties.

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

HP 5: Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

cleaned plastic bottle:

15 01 02: plastic packaging

emballage:

15 01 01: emballages en papier/carton

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.**SECTION 14: Transport information****14.1 UN number or ID number**

ADR, IMDG, IATA

UN1219

14.2 UN proper shipping name

ADR

1219 ISOPROPANOL (ISOPROPYL ALCOHOL)

IMDG, IATA

ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3 Transport hazard class(es)

ADR, IMDG, IATA

**Class**

3 Flammable liquids.

Label

3

14.4 Packing group

ADR, IMDG, IATA

II

14.5 Environmental hazards:**Marine pollutant:**

No

14.6 Special precautions for user

Warning: Flammable liquids.

(Contd. on page 8)

Safety data sheet

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

Printing date 20.02.2026

Version number 8 (replaces version 7)

Revision: 20.02.2026

Trade name: flux thinner VF2

(Contd. of page 7)

Hazard identification number (Kemler code): 33
EMS Number: F-E,S-D
Stowage Category B
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 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 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
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None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

*None of the ingredients is listed.***National regulations:****Information about limitation of use:***Employment restrictions concerning pregnant and lactating women must be observed.**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.*

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:**31.03.2016: *Adaption to Regulations 453/2010/EG, 830/2015/EU, 2012/18/EU*06.09.2018: *section 13*

(Contd. on page 9)

— EU —

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31 and 2020/878/
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Version number 8 (replaces version 7)

Revision: 20.02.2026

Trade name: flux thinner VF2

(Contd. of page 8)

09.03.2021: section 1, 15, 16

19.01.2023: section 12, 15

03.02.2025: section 8, 15

29.07.2025: section 1, 15

20.02.2026: section 14

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.**H336 May cause drowsiness or dizziness.***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**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3***Safety data sheet SD3057**

— EU —