

Revision date: 11.09.2023

REF

FINODIE Thinner

19897

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

FINODIE Thinner

REF 19897**Further trade names**

MEK

DIETHYLKETONE

BUTYL ACETATE

Product group: Ketone
CAS No: 78-93-3
Index No: 606-002-00-3
EC No: 201-159-0
UFI: **G83S-S15S-900E-F09Q**

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Coatings and paints, thinners, paint removers

Uses advised against

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this mixture.

1.3. Details of the supplier of the safety data sheet

Company name: FINO GmbH
Street: Mangelsfeld 18
Place: D-97708 Bad Bocklet
Telephone: +49-97 08-90 94 20
e-mail: info@fino.com
Contact person: Joachim Mahlmeister
e-mail: info@fino.com
Responsible Department: This number can only be reached during our office hours, Monday to Friday from 8 a.m. to 5 p.m.

Telefax: +49-97 08-90 94 21

Internet: www.fino.com

Telephone: +49-97 08-90 94 20

1.4. Emergency telephone number:

+49-89-1 92 40
POISON CENTER München
24 hour(s) 7 day(s)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Flam. Liq. 2; H225

Eye Irrit. 2; H319

STOT SE 3; H335

STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard components for labelling**

butanone; ethyl methyl ketone pentan-3-one; diethyl ketone

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H335	May cause respiratory 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.
P280	Eye protection/Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of Water and soap.
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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.
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Additional advice on labelling

The product is classified and labelled according to EC directives or corresponding national laws.
Classification according to Regulation (EC) No 1272/2008 [CLP]

2.3. Other hazards

Solvent Effects: Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Chemical characterization

Mixture from the below listed substances with harmless additives.

Sum formula:	C ₄ H ₈ O
Molecular weight:	72,11g/mol

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
78-93-3	butanone; ethyl methyl ketone			50-100 %
	201-159-0	606-002-00-3		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
96-22-0	pentan-3-one; diethyl ketone			25-50 %
	202-490-3	606-006-00-5		
	Flam. Liq. 2, STOT SE 3, STOT SE 3; H225 H335 H336 EUH066			
123-86-4	n-butyl acetate			2,5-10 %
	204-658-1	607-025-00-1		
	Flam. Liq. 3, STOT SE 3; H226 H336 EUH066			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
78-93-3	201-159-0	butanone; ethyl methyl ketone	50-100 %
		dermal: LD50 = 6480 mg/kg; oral: LD50 = 2740 mg/kg	
96-22-0	202-490-3	pentan-3-one; diethyl ketone	25-50 %
		dermal: LD50 = 16300 mg/kg; oral: LD50 = 2140 mg/kg	
123-86-4	204-658-1	n-butyl acetate	2,5-10 %
		dermal: LD50 = 17600 mg/kg; oral: LD50 = 10800 mg/kg	

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

No special measures are necessary.

After inhalation

Provide fresh air.

Seek medical attention if problems persist.

After contact with skin

The product is not skin irritating.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No known symptoms to date.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

Carbon dioxide (CO₂), Sand, Extinguishing powder. Never use water.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

No special measures are necessary.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
General advice

Keep unprotected persons away.

For non-emergency personnel

Emergency procedures

Remove persons to safety. Remove victim out of the danger area.

The danger areas must be delimited and identified using relevant warning and safety signs.

For emergency responders

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Wear personal protection equipment (refer to section 8).

6.2. Environmental precautions

Do not allow to enter sewers/surface or ground water.

6.3. Methods and material for containment and cleaning up**For containment**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Following consultation with waste management company and after biological pre-treatment, landfill together with household waste.

For cleaning up

Do not flush with water or watery cleaning agents

For cleaning, approved industrial vacuum cleaners are recommended, dust class:

Collect in closed and suitable containers for disposal.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Provide adequate ventilation.

Do not flush with water or watery cleaning agents

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Treat the recovered material as prescribed in the section on waste disposal. Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Ensure good ventilation / exhaustion at the workplace.

Avoid the formation of aerosol.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated, saturated clothing immediately.

Wash hands before breaks and after work.

When using do not eat, drink or smoke.

Avoid contact with eyes and skin.

Further information on handling

No special handling advices are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep in a cool place.

Hints on joint storage

Not required.

Further information on storage conditions

Keep container tightly closed.

Store in cool, dry conditions in well sealed receptacles.

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Betriebssicherheitsverordnung (BetrSichV)

7.3. Specific end use(s)

Coatings and paints, thinners, paint removers

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
123-86-4	Butyl acetate	150	724		TWA (8 h)	WEL
		200	966		STEL (15 min)	WEL
96-22-0	Pentan-3-one	200	716		TWA (8 h)	WEL
		250	895		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
123-86-4	n-butyl acetate			
Consumer DNEL, long-term		dermal	local	7 ppm
Consumer DNEL, long-term		inhalation	local	48 mg/m ³

PNEC values

CAS No	Substance	Value
123-86-4	n-butyl acetate	
Freshwater		0,18 mg/l
Soil		0,093 mg/kg

Additional advice on limit values

The lists valid during the making were used as basis.

8.2. Exposure controls

Appropriate engineering controls

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Individual protection measures, such as personal protective equipment
Eye/face protection

Tightly sealed safety glasses.

Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
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 can not be calculated in advance and has therefore to be checked prior to the application.
The precise time of rupture can be found out from the manufacturer of the protective gloves and must be observed.
Suitable material: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Skin protection

lab coat.

Respiratory protection

Respiratory protection not required.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	ester
Odour threshold:	not determined

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	79 °C
Softening point:	not applicable
Flash point:	-4 °C

Flammability

Solid/liquid:	not determined
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Explosive properties

not explosive. However, formation of explosive air/vapour mixtures are possible.

Lower explosion limits:	1,2 vol. %
Upper explosion limits:	11,5 vol. %
Auto-ignition temperature:	445 °C

Self-ignition temperature

Solid:	Product is not selfigniting.
Decomposition temperature:	not determined
Water solubility:	partially miscible
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	105 hPa
Density (at 20 °C):	0,81 g/cm ³
Bulk density:	not determined
Relative vapour density:	not determined

9.2. Other information
Information with regard to physical hazard classes

Sustaining combustion:

No data available

Oxidizing properties

No data available.

Other safety characteristics

Solvent separation test:

Organic solvents: 100 %

Maximum VOC content: 100 %

Solid content:

0 %

Evaporation rate:

not determined

Further Information
SECTION 10: Stability and reactivity
10.1. Reactivity

No specific test data related to reactivity available for this product or its ingredients.

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 decomposition if used according to specifications.

10.5. Incompatible materials

Keep only in the original container.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in GB CLP Regulation
Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 mg/kg	2740	Rat	GESTIS
	dermal	LD50 mg/kg	6480	Rabbit	GESTIS
96-22-0	pentan-3-one; diethyl ketone				
	oral	LD50 mg/kg	2140	Rat	GESTIS
	dermal	LD50 mg/kg	16300	Rabbit	GESTIS
123-86-4	n-butyl acetate				
	oral	LD50 mg/kg	10800	Ratte	RTECS
	dermal	LD50 mg/kg	17600	Kaninchen	IUCLID

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (pentan-3-one; diethyl ketone)

May cause drowsiness or dizziness. (butanone; ethyl methyl ketone; pentan-3-one; diethyl ketone)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

Toxicological data are not available.

Additional information on tests

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
irritant.

Practical experience

No special references.

11.2. Information on other hazards
Endocrine disrupting properties

Based on available data, the classification criteria are not met.

Other information

No special precautionary measures.

SECTION 12: Ecological information
12.1. Toxicity

Don't let flow into the ground water, in waters or the sewage system undiluted resp. in larger quantities.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l	3220	96 h		
	Acute crustacea toxicity	EC50 mg/l	5090	48 h		
96-22-0	pentan-3-one; diethyl ketone					
	Acute fish toxicity	LC50 mg/l	1540	96 h	Pimephales promelas	GESTIS
123-86-4	n-butyl acetate					
	Acute fish toxicity	LC50	81 mg/l	96 h		

12.2. Persistence and degradability

none Evidence exists for biodegradation processes.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
78-93-3	butanone; ethyl methyl ketone	0,29
96-22-0	pentan-3-one; diethyl ketone	0,82
123-86-4	n-butyl acetate	0,29

12.4. Mobility in soil

Respective data are not available.

12.5. Results of PBT and vPvB assessment

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

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.

No information available.

12.7. Other adverse effects

Water hazard class slightly hazardous to water.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Disposal recommendations

Must not be disposed together with household garbage.

Do not allow to enter into surface water or drains.

List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information
Land transport (ADR/RID)
14.1. UN number or ID number:

UN 1224

14.2. UN proper shipping name:

KETONES, LIQUID, N.O.S.

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3



Classification code:

F1

Special Provisions:

274 640D

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1224
14.2. UN proper shipping name: KETONES, LIQUID, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Classification code: F1
Special Provisions: 274 640D
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 1224
14.2. UN proper shipping name: KETONES, LIQUID, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Special Provisions: 274
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1224
14.2. UN proper shipping name: KETONES, LIQUID, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3



Special Provisions: A3
Limited quantity Passenger: 1 L
Passenger LQ: Y341
Excepted quantity: E2
IATA-packing instructions - Passenger: 353
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Flammable liquids

14.7. Maritime transport in bulk according to IMO instruments

No special precautionary measures.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2010/75/EU (VOC): 30 %

2004/42/EC (VOC): 30 % (243 g/l)

Subcategory according to Directive 2004/42/EC: Decorative effect coatings - Solvent-borne coatings, VOC limit value: 200 g/l

Information according to 2012/18/EU (SEVESO III): P3a FLAMMABLE AEROSOLS

Additional information: P3a, P5c

Additional information

The product is classified and labelled according to EC directives or corresponding national laws.

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

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

Additional information

Betriebssicherheitsverordnung (BetrSichV)

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2.

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 Organization

"ICAO-TI: Technical Instructions by the ""International Civil Aviation Organization"" (ICAO)"

ADR: Accord européen sur le transport 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 Harmonized 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)

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

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, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

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. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Stumpflack	-	20	9a	10	4	0	-	78-93-3

LCS: Life cycle stages

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

TF: Technical functions

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)