

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Debubblizer

Revision date: 10.05.2022

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

1.1. Product identifier

Debubblizer

Product code:

25030

UFI:

F253-600D-R00U-82ED

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

Use of the substance/mixture

(Surface modifier)

Restricted to professional users.

1.3. Details of the supplier of the safety data sheet

Company name: DFS-DIAMON GmbH

Street: Ländenstr. 1

Place: D-93339 Riedenburg

Telephone: +49 (0)9442 9189 0

Telefax: +49 (0)9442 9189 37

e-mail: info@dfs-diamon.de

Contact person: Armin Aunkofer

e-mail: armin.aunkofer@dfs-diamon.de

Internet: www.dfs-diamon.de

1.4. Emergency telephone number:

24 hour Emergency Contact: +49 (0) 700 24112112 (DFS)
+1 872 5888271

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225

Eye Irrit. 2; H319

STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008**Hazard components for labelling**

acetone; propan-2-one; propanone

Signal word: Danger**Pictograms:****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.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

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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+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of waste according to applicable legislation.

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64-17-5	ethanol, ethyl alcohol			65 - < 70 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
67-64-1	acetone; propan-2-one; propanone			25 - < 30 %
	200-662-2	606-001-00-8	01-2119471330-49	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
78-93-3	butanone; ethyl methyl ketone			< 1 %
	201-159-0	606-002-00-3	01-2119457290-43	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 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		
64-17-5	200-578-6	ethanol, ethyl alcohol	65 - < 70 %
	inhalation: LC50 = 117 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100		
78-93-3	201-159-0	butanone; ethyl methyl ketone	< 1 %
	dermal: LD50 = 6480 mg/kg; oral: LD50 = 2193 mg/kg		

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.

After inhalation

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

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After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Observe risk of aspiration if vomiting occurs. When in doubt or if symptoms are observed, get medical advice.

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

May cause drowsiness or dizziness.

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

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.
Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours are heavier than air, spread along floors and form explosive mixtures with air.
In case of fire may be liberated: Pyrolysis products, toxic

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. 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

General advice

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

For non-emergency personnel

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Ventilate affected area.

Other information

Use only antistatically equipped (spark-free) tools. Clean contaminated articles and floor according to the environmental legislation.

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

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Advice on safe handling

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

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

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Keep away from heat.

7.3. Specific end use(s)

(Surface modifier)

Restricted to professional users.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	
64-17-5	Ethanol	1000	-		STEL (15 min)	
78-93-3	Methyl ethyl ketone (MEK) (Butan-2-one)	200	600		TWA (8 h)	
		300	900		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
67-64-1	Acetone	Acetone	50 mg/L	Urine	End of shift
78-93-3	Butan-2-one	Butan-2-one	70 µmol/L	Urine	Post shift

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
64-17-5	ethanol, ethyl alcohol		
Worker DNEL, long-term	inhalation	systemic	950 mg/m ³
Worker DNEL, acute	inhalation	local	1900 mg/m ³
Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	114 mg/m ³
Consumer DNEL, acute	inhalation	local	950 mg/m ³
Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	87 mg/kg bw/day
78-93-3	butanone; ethyl methyl ketone		
Worker DNEL, long-term	inhalation	systemic	600 mg/m ³
Worker DNEL, long-term	dermal	systemic	1161 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	106 mg/m ³
Consumer DNEL, long-term	dermal	systemic	412 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	31 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
64-17-5	ethanol, ethyl alcohol	
Freshwater	0,96 mg/l	
Marine water	0,79 mg/l	
Freshwater sediment	3,6 mg/kg	
Marine sediment	2,9 mg/kg	
Secondary poisoning	0,72 mg/kg	
Micro-organisms in sewage treatment plants (STP)	580 mg/l	
Soil	0,63 mg/kg	
78-93-3	butanone; ethyl methyl ketone	
Freshwater	55,8 mg/l	
Marine water	55,8 mg/l	
Micro-organisms in sewage treatment plants (STP)	709 mg/l	
Freshwater sediment	284,74 mg/kg	
Marine sediment	284,7 mg/kg	
Soil	22,5 mg/kg	
Secondary poisoning	1000 mg/kg	

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

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

Wear eye/face protection. (EN 166)

Hand protection

Wear suitable gloves tested to EN374.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Thermal hazards

Flame-retardant protective clothing

Environmental exposure controls

Avoid release to the environment.

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

Physical state:	Liquid
Colour:	blue, white
Odour:	like: Alcohol
Odour threshold:	not determined

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	(Acetone) 56 °C
Flash point:	(Acetone) < -20 °C

Flammability

Solid/liquid:	not determined
Gas:	not applicable
Lower explosion limits:	(Acetone) 2,5 vol. %
Upper explosion limits:	(Acetone) 15 vol. %
Auto-ignition temperature:	400 °C
Decomposition temperature:	not determined
pH-Value:	6 - 8
Viscosity / kinematic:	not determined
Water solubility:	easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	246 hPa
Vapour pressure: (at 50 °C)	814 hPa

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Density: 0,79 g/cm³
 Relative vapour density: not determined
 Particle characteristics: not applicable

9.2. Other information

Other safety characteristics

Danger of explosion: Vapours can form explosive mixtures with air.

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Heat. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

Oxidising agent. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic

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.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol, ethyl alcohol				
	oral	LD50 mg/kg	10470	Rat	Manufacturer
	inhalation (4 h) vapour	LC50	117 mg/l	Rat	Manufacturer
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 mg/kg	2193	Rat	OECD 423
	dermal	LD50 mg/kg	6480	Rabbit	GESTIS

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 drowsiness or dizziness. (acetone; propan-2-one; propanone)

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STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

Information on likely routes of exposure

oral, dermal, inhalative, Eye contact.

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

No information available.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50 mg/l	14200	96 h	Pimephales promelas (fathead minnow)	Manufacturer
	Acute crustacea toxicity	EC50 mg/l	9268 - 14221	48 h	Daphnia magna	Manufacturer
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l	2993	96 h	Pimephales promelas (fathead minnow)	OECD 203
	Acute algae toxicity	ErC50 mg/l	2029	96 h	Selenastrum capricornutum	OECD 201
	Acute crustacea toxicity	EC50	308 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202
	Fish toxicity	NOEC mg/l	1170	4 d	Pimephales promelas (fathead minnow)	OECD 203
	Algae toxicity	NOEC mg/l	1240	4 d	Selenastrum capricornutum	OECD 201
	Crustacea toxicity	NOEC	68 mg/l	2 d	Daphnia magna (Big water flea)	OECD 202

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
64-17-5	ethanol, ethyl alcohol				
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	97 %	28	IUCLID	
	Readily biodegradable (according to OECD criteria).				
78-93-3	butanone; ethyl methyl ketone				
		98 %	28	OECD 301D/ EEC 92/69/V, C.4-E	
	Readily biodegradable (according to OECD criteria).				

12.3. Bioaccumulative potential

The product has not been tested.

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol, ethyl alcohol	-0,31
78-93-3	butanone; ethyl methyl ketone	0,3

12.4. Mobility in soil

The product has not been tested.

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.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl alcohol, acetone; propan-2-one; propanone)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Classification code:	F1
Special Provisions:	274 601 640C
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 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl alcohol, acetone; propan-2-one; propanone)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

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Classification code: F1
 Special Provisions: 274 601 640C
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl alcohol, acetone; propan-2-one; propanone)
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-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl alcohol, acetone; propan-2-one; propanone)
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. Vapours can form explosive mixtures with air.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2010/75/EU (VOC): < 100 %

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

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

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

ethanol, ethyl alcohol

butanone; ethyl methyl ketone

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,2,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety

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assessment, chapter R.20 (Table of terms and abbreviations).

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

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

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

Further Information

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. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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