

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

FINO SPANN-EX Silicone Surface Tension Reducer

REF 14225 / 14227

Further trade names

ACETONE

ISOPROPYL ALCOHOL

Product group:

Alkohole

UFI:

0FD8-Y1KW-N00E-TD7W

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

Material for the reduction of surface tension

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	Telefax: +49-97 08-90 94 21
e-mail:	info@fino.com	Internet: www.fino.com
Contact person:	Joachim Mahlmeister	Telephone: +49-97 08-90 94 20
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.	

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; H336

Full text of hazard statements: see SECTION 16.

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

2.2. Label elements**GB CLP Regulation****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.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
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.
P405	Store locked up.
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. No further data.
--------	---

Additional advice on labelling

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

2.3. Other hazards

"The product is liable to marking based on the evaluation procedure of the ""General Directive for Classification of Preparations of the EC"" in the lasted valid version."

Narcotic effects

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

Mixture from the below listed substances with harmless additives.

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
67-64-1	acetone; propan-2-one; propanone			50-100 %
	200-662-2	606-001-00-8		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			25-50 %
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			

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		
67-64-1	200-662-2	acetone; propan-2-one; propanone	50-100 %
	inhalation: LC50 = 76 mg/l (vapours); dermal: LD50 = 20000 mg/kg; oral: LD50 = 5800 mg/kg		
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	25-50 %
	dermal: LD50 = 12800 mg/kg; oral: LD50 = 5050 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures**General information**

Immediately remove any contaminated clothing, shoes or stockings.
Remove casualty to fresh air and keep warm and at rest.

After inhalation

Provide fresh air.
Seek medical attention if problems persist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.
In case of skin irritation, consult a physician.

After contact with eyes

Rinse opened eye for several minutes under running water.
In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Seek medical attention if problems persist.

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

Headache, Dizziness, Nausea

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), Extinguishing powder
In case of major fire and large quantities: Water spray jet, alcohol resistant foam

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide, Carbon monoxide
In use may form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

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

Additional information

Cool containers at risk with water spray.

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

Use appropriate respiratory protection. Provide adequate ventilation. Use personal protection equipment. Keep unprotected persons away.

For non-emergency personnel

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

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not allow to enter into surface water or drains.

If product enters soil, it will be mobile and may contaminate groundwater.
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

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

For cleaning, approved industrial vacuum cleaners are recommended, dust class:
Collect in closed and suitable containers for disposal.

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

Keep container tightly closed.
Protect from heat and direct sunlight.
Ensure good ventilation / exhaustion at the workplace.
Avoid the formation of aerosol.

Advice on protection against fire and explosion

Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.

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 only in the original container.
Keep container tightly closed in a cool place.

Hints on joint storage

Keep away from combustible material.

Further information on storage conditions

Keep container in a well-ventilated place.
Keep container tightly closed.
Store in cool, dry conditions in well sealed receptacles.

Betriebssicherheitsverordnung (BetrSichV) @0701.B007219

7.3. Specific end use(s)

Auxiliary for dental technology

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

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

solvent resistant gloves.

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. Observe the wear time limits as specified by the manufacturer.

Suitable material: Butyl caoutchouc (butyl rubber) (EN ISO 374)

Skin protection

Wear suitable protective clothing.

Respiratory protection

"Use breathing filter apparatus at short-time or low exposure; use breathing filter apparatus independent from circulating air at intensive resp. longer exposure."

acute Filtering device (full mask or mouthpiece) with filter: Combination filtering device

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:	characteristic

Changes in the physical state

Melting point/freezing point:	not determined
-------------------------------	----------------

Boiling point or initial boiling point and boiling range: 56 °C
Softening point: not applicable
Flash point: -10 °C

Flammability

Solid/liquid: not determined

Explosive properties

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

Lower explosion limits: 2,0 vol. %
Upper explosion limits: 13,0 vol. %
Auto-ignition temperature: 425 °C

Self-ignition temperature

Solid: Product is not selfigniting.

Decomposition temperature: not determined
Water solubility: completely miscible
Partition coefficient n-octanol/water: not determined
Vapour pressure: 233 hPa
(at 20 °C)
Density (at 20 °C): 0,782 g/cm³
Relative vapour density: not determined

9.2. Other information**Information with regard to physical hazard classes**

Sustaining combustion: No data available
Oxidizing properties
Not oxidising.

Other safety characteristics

Solvent content: Organic solvents: 100,0%
Maximum VOC content: - %
Solid content: not applicable
Evaporation rate: not determined

Further Information**SECTION 10: Stability and reactivity****10.1. Reactivity**

None if stored and handled according to specifications.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Violent reaction with: Oxidising agent, strong

10.4. Conditions to avoid

Protect from heat and direct sunlight.

10.5. Incompatible materials

Combustible substance

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
67-64-1	acetone; propan-2-one; propanone				
	oral	LD50 mg/kg 5800	Rat	RTECS	
	dermal	LD50 mg/kg 20000	Rabbit	IUCLID	
	inhalation (4 h) vapour	LC50 76 mg/l	Rat		
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 mg/kg 5050	Rat		
	dermal	LD50 mg/kg 12800	Rabbit		

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; propan-2-ol; isopropyl alcohol; isopropanol)

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 analyses are not available.

Additional information on tests

In case of inhalation High concentrations can result in fatigue and vertigo. The product causes narcotic-like effects. Headache Dizziness

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
67-64-1	acetone; propan-2-one; propanone					
	Acute fish toxicity	LC50 mg/l	5540	96 h	Onchorhynchus mykiss	
	Acute crustacea toxicity	EC50 mg/l	6100	48 h	Daphnia magna	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h		
	Acute crustacea toxicity	EC50 mg/l	1400	48 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
67-64-1	acetone; propan-2-one; propanone	-0,24
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05

12.4. Mobility in soil

No information 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

No effects known.

Further information

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.

Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

List of Wastes Code - used product

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

Contaminated packaging

Dispose of waste according to applicable legislation.

Water, if necessary together with cleansing agents.

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. (acetone; propan-2-one; propanonepropan-2-ol; isopropyl alcohol; isopropanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



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



Classification code: F1
 Special Provisions: 274 601 640D
 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. (acetone; propan-2-one; propanonepropan-2-ol; isopropyl alcohol; isopropanol)
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. (acetone; propan-2-one; propanonepropan-2-ol; isopropyl alcohol; isopropanol)
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): 60 % (469,2 g/l)
 2004/42/EC (VOC): 60 % (469,2 g/l)
 Information according to 2012/18/EU (SEVESO III): P5b FLAMMABLE LIQUIDS
 Additional information: P5b

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.

* Data changed compared with the previous version.

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)
 Flam. Lig. 2: Flammable liquids, Hazard Category 2
 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.
 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.

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Auxiliary for dental technology	PW	20	0	0	4	0	94	100

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.)