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FSG-Anti-Adhesive Agent, Type TR 12 Plus

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

1.1. Product identifier

Trade name/designation:

FSG-Anti-Adhesive Agent, Type TR 12 Plus

Article No.:

TR28000

UFI:

8XHG-E2T4-W00P-HSGA

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

Telephone: +49 (0) 25 63 - 93 95 - 0

Antiadhesive-Agent

Relevant identified uses:

Life cycle stage [LCS]

IS: Use at industrial sites

Sector of uses [SU]

SU 6a: Manufacture of wood and wood products

Product Categories [PC]

PC 24: Lubricants, greases, release products

Article categories [AC]

AC 11: Wood articles

1.3. Details of the supplier of the safety data sheet

distributor: **Manufacturer:**

BLAŽIČ d.o.o. **FSG Schäfer GmbH** Zgornji Brnik 368 Boschstraße 14 4210 Aerodrom Brnik 48703 Stadtlohn Slovenia **GERMANY**

Telephone: +386 1 519 92 60 **Telefax:** +386 1 507 63 79

Telefax: +49 (0) 25 63 - 93 95 - 25 E-mail: info@blazic.eu **E-mail:** verkauf@fsg-schaefer.de Website: www.blazic.eu Website: www.fsg-schaefer.de

Navodilo v primeru zdravstvene orozenosti: nemuoma se posvetrovati z osebnim dli

dežumim zdravrikom, le v rimeru življenjske orožensti pokliczti 112.

1.4. Emergency telephone number

BLAŽIČ d.o.o. Zaornii Brnik368 4210 Aerodrom Brnik

Slovenia, Dodatne informacije nz št +386 1 519 92 60 med. 8:00 pm in 15:00 pm (Only available during

office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids (Flam. Liq. 2)	H225: Highly flammable liquid and vapour.	On basis of test data.
Acute toxicity (oral) (Acute Tox. 4)	H302: Harmful if swallowed.	Calculation method.
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	Calculation method.

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Hazard classes and hazard categories	Hazard statements	Classification procedure
, , , , ,	H336: May cause drowsiness or dizziness.	Calculation method.
	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms:





GHS02 Flame

GHS07 Exclamation mark

Signal word: Danger

Hazard components for labelling:

propan-2-ol; Hydrocarbons, C9-C1 $\overline{0}$, containing n-alkanes, isoalkanes, cyclics, with <2% aromatics; Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics; Hydrocarbons, C12-C15, n-alkanes, isoalkanes < 2% aromatics

Hazard statements for physical hazards		
H225	Highly flammable liquid and vapour.	

Hazard statements for health hazards		
H302	Harmful if swallowed.	
H319	Causes serious eye irritation.	
H336	6 May cause drowsiness or dizziness.	

Hazard statements for environmental hazards		
H412	Harmful to aquatic life with long lasting effects.	

Supplemental hazard information: none

Precautionary statements Prevention		
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P233	Keep container tightly closed.	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ Personal protection equipment.	

Precautionary statements Response		
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if preser and easy to do. Continue rinsing.		
P370 + P378	In case of fire: Use Foam to extinguish.	

Special rules for supplemental label elements for certain mixtures:

- 21,6 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).
- 71,3 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).
- 32,1 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).
- 24,1 % percent of the mixture consists of components of unknown hazards to the aquatic environment.

2.3. Other hazards

Adverse human health effects and symptoms:

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

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SECTION 3: Composition/information on ingredients

* 3.2. Mixtures

Description:

Mixture of following listed substances with nonhazardous additions.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 67-63-0 EC No.: 200-661-7 Index No.: 603-117-00-0 REACH No.: 01-2119457558-25-XXXX	propan-2-ol Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Other Danger Acute Toxicity Estimate ATE (inhalation, gases) > 25,000 mg/kg ATE (inhalation, vapour) > 25 mg/L	7 - < 14 weight-%
EC No.: 927-241-2 REACH No.: 01-2119471843-32-XXXX	Hydrocarbons, C9-C10, containing n-alkanes, isoalkanes, cyclics, with <2% aromatics Aquatic Chronic 3 (H412), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H336) ♠ ♠ ♠ Danger Acute Toxicity Estimate ATE (oral) > 15,000 mg/kg ATE (dermal) > 5,000 mg/kg ATE (inhalation, vapour) > 5,000 mg/L ATE (inhalation, dust/mist) > 6.1 mg/L	4 - ≤ 7.5 weight-%
EC No.: 927-632-8 REACH No.: 01-2119457736-27	Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics Asp. Tox. 1 (H304)	3 - ≤ 5.00001 weight-%
EC No.: 920-107-4 REACH No.: 01-2119453414-42	Hydrocarbons, C12-C15, n-alkanes, isoalkanes < 2% aromatics Asp. Tox. 1 (H304) Danger Acute Toxicity Estimate ATE (oral) > 5,000 - 15,000 mg/kg ATE (dermal) ≥ 3,160 mg/kg ATE (inhalation, gases) > 0.004951 - 0.0093 g/m³	1 - < 3 weight-%
CAS No.: 78-93-3 EC No.: 201-159-0 Index No.: 606-002-00-3	butanone Eye Irrit. 2 (H319), Flam. Liq. 2 (H225) Danger Acute Toxicity Estimate ATE (oral) 2,740 mg/kg ATE (dermal) 6,480 mg/kg	0 - ≤ 0.675 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician. Get medical advice/attention if you feel unwell.

In case of skin contact:

Take off immediately all contaminated clothing.

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If skin irritation or rash occurs: Get medical advice/attention. After contact with skin, wash immediately with plenty of water and soap.

After eye contact:

Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several minutes.

Following ingestion:

Rinse mouth. Get medical advice/attention if you feel unwell. Let 1 glass of water be drunken in little sips (dilution effect).

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

Serious eye damage/eye irritation, Dizziness, 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, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO2).

Fire extinguishers Fire class B.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable, Combustible.

Hazardous combustion products:

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2), Pyrolysis products, toxic, carbon black.

In case of fire: Gases/vapours, toxic.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

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

6.1.1. For non-emergency personnel

Personal precautions:

Special danger of slipping by leaking/spilling product. Remove persons to safety.

Protective equipment:

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

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8.

* 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Soak up inert absorbent and dispose as waste requiring special attention.

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

For cleaning up:

Clean with detergents. Avoid solvent cleaners. Water (with cleaning agent).

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6.4. Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Do not breathe gas/fumes/vapour/spray. Repeated exposure may cause skin dryness or cracking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Wear personal protection equipment (refer to section 8).

Fire prevent measures:

Highly flammable, Take precautionary measures against static discharge.

Environmental precautions:

Discharge into the environment must be avoided.

Advices on general occupational hygiene

Wash hands before breaks and after work. After cleaning apply high-fat content skin care cream. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:

Material, solvent-resistant, Keep/Store only in original container.

Requirements for storage rooms and vessels:

Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on storage assembly:

Keep away from combustible material. Do not store together with:

Combustible substances of acute toxicity, category 1 and 2 / very toxic substances,

Non-combustible substances of acute toxicity, category 1 and 2 / very toxic substances,

Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects,

Non-combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects.

Storage class (TRGS 510, Germany): 3 - Flammable liquids

Further information on storage conditions:

Protect from sunlight. Store in a well-ventilated place.

7.3. Specific end use(s)

Recommendation:

Lubricants, greases, release products.

Industrial sector specific solutions:

Anti-corrosive paints, containing solvents, aromatics removed.

GISCODE:

BS40

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	 Long-term occupational exposure limit value Short-term occupational exposure limit value Instantaneous value Monitoring and observation processes Remark
SI from 4 Oct 2018	propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	① 200 ppm (500 mg/m³) ② 400 ppm (1,000 mg/m³) ⑤ Y, BAT
IOELV (EU)	butanone CAS No.: 78-93-3 EC No.: 201-159-0	① 200 ppm (600 mg/m³) ② 300 ppm (900 mg/m³)
SI	butanone CAS No.: 78-93-3 EC No.: 201-159-0	 ① 200 ppm (600 mg/m³) ② 300 ppm (900 mg/m³) ⑤ (računati je treba z možnostjo prodiranja skozi kožo) K, Y, BAT, EU1

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	 Parameter Test material Time of sampling: Remark
BAT (SI) from 4 Dec 2018	propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	 aceton kri ob koncu delovne izmene
BAT (SI) from 4 Oct 2018	propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	25 mg/L	 aceton urin ob koncu delovne izmene
BAT (SI) from 11 May 2021	butanone CAS No.: 78-93-3 EC No.: 201-159-0	2 mg/L	metil etil keton urin ob koncu delovne izmene

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type
		② Exposure route
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	500 mg/m ³	① DNEL worker ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	89 mg/m ³	① DNEL Consumer ② Long-term – inhalation, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	319 mg/kg	① DNEL Consumer ② Long-term - dermal, systemic effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	888 mg/kg	① DNEL worker ② Long-term - dermal, local effects
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	26 mg/kg	① DNEL Consumer ② Long-term - oral, systemic effects

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Substance name	DNEL value	① DNEL type
		② Exposure route
Hydrocarbons, C9-C10, containing n-	185 mg/m³	① DNEL Consumer
alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2		② Long-term – inhalation, systemic effects
Hydrocarbons, C9-C10, containing n-	77 mg/kg bw/	① DNEL worker
alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	day	② Long-term - dermal, systemic effects
Hydrocarbons, C9-C10, containing n-	46 mg/kg bw/	① DNEL Consumer
alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	day	② Long-term - dermal, systemic effects
Hydrocarbons, C9-C10, containing n-		① DNEL worker
alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	day	② Long-term - oral, systemic effects
Hydrocarbons, C9-C10, containing n-	46 mg/kg bw/	① DNEL Consumer
alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	day	② Long-term - oral, systemic effects
butanone	600 mg/m ³	① DNEL worker
CAS No.: 78-93-3 EC No.: 201-159-0		② Long-term – inhalation, systemic effects
butanone CAS No.: 78-93-3	106 mg/m ³	① DNEL Consumer
EC No.: 201-159-0		② Long-term – inhalation, systemic effects
butanone	1,161 mg/kg	① DNEL worker
CAS No.: 78-93-3 EC No.: 201-159-0	bw/day	② Long-term - dermal, systemic effects
butanone CAS No.: 78-93-3 EC No.: 201-159-0	412 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
butanone	31 mg/kg bw/	① DNEL worker
CAS No.: 78-93-3 EC No.: 201-159-0	day	② Long-term - oral, systemic effects
Substance name	PNEC Value	① PNEC type
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	140.9 mg/L	① PNEC aquatic, marine water
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	2,251 mg/L	① PNEC sewage treatment plant
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	552 mg/kg	① PNEC sediment, freshwater
propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	28 mg/kg	① PNEC soil, freshwater
butanone CAS No.: 78-93-3 EC No.: 201-159-0	55.8 mg/L	① PNEC aquatic, freshwater
butanone	55.8 mg/L	① PNEC aquatic, marine water
CAS No.: 78-93-3 EC No.: 201-159-0		

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Substance name	PNEC Value	① PNEC type
butanone CAS No.: 78-93-3 EC No.: 201-159-0	709 mg/L	① PNEC sewage treatment plant
butanone CAS No.: 78-93-3 EC No.: 201-159-0	284.74 mg/kg	① PNEC sediment, freshwater
butanone CAS No.: 78-93-3 EC No.: 201-159-0	284.7 mg/kg	① PNEC sediment, marine water
butanone CAS No.: 78-93-3 EC No.: 201-159-0	1 g/kg	① PNEC secondary poisoning
butanone CAS No.: 78-93-3 EC No.: 201-159-0	55.8 mg/L	① PNEC aquatic, intermittent release
butanone CAS No.: 78-93-3 EC No.: 201-159-0	22.5 mg/kg	① PNEC soil, freshwater

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. generation/formation of aerosols: Technical ventilation of workplace.

8.2.2. Personal protection equipment





Eye/face protection:

Eye glasses with side protection EN 166.

Skin protection:

Tested protective gloves must be worn. EN ISO 374.

In full conatct: Suitable material: Butyl caoutchouc (butyl rubber), Thickness of the glove material >0,7 mm. Breakthrough time: >480 min.

In splash contact: Suitable material: Butyl caoutchouc (butyl rubber), NBR (Nitrile rubber), Thickness of the glove material >0,4 mm. Breakthrough time: >120 min.

The following gloves may be used: Ultranitril 492, MAPA Professionnel & Nitril/Neopren Microflex 93-260 (EN374(JKL), EN388 (2000); Kat.III; AQL 0,65).

In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Filtering device with filter or ventilator filtering device of type: AX.

Thermal hazards:

Risk of explosion if heated under confinement.

Other protection measures:

Wear suitable protective clothing.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid Form: Liquid

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Colour: green Odour: Alcohol

flammability: Yes

Safety relevant basis data

Parameter	Value	at °C	1 Method
			② Remark
На	7		② pH neutral
Melting point	No data available		
Freezing point	No data available		
Initial boiling point and boiling range	78 - 137 °C		
Flash point	12 °C		
Evaporation rate	No data available		
Auto-ignition temperature	No data available		
Upper/lower flammability or explosive limits	No data available		
Vapour pressure	No data available		
Vapour density	No data available		
Density	No data available		
Bulk density	not applicable		
Water solubility	partially miscible		
Dynamic viscosity	No data available		
Kinematic viscosity	0.87 mm ² /s	40 °C	

9.2. Other information

No data available

SECTION 10: Stability and reactivity

* 10.1. Reactivity

Combustible substance, Highly flammable liquid and vapour. Highly flammable liquid and vapour.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions/Exothermic reaction with: Acid, Light metals, (Formation of: Hydrogen).

10.4. Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5. Incompatible materials

Oxidising agent.

10.6. Hazardous decomposition products

In case of warming: Flammable solvent vapor mixtures are possible. Gases/vapours, toxic.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information

oxicological information		
Acute Toxicity	y Estimate for Mixtures	
ATE (derma	I): 6,205.3 mg/kg	
propan-2-ol	propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7	
LD₅₀ oral: 5	LD₅₀ oral: 5,050 mg/kg (Rat)	
LD ₅₀ derma	LD ₅₀ dermal: 12,800 mg/m³ (Rabbit)	
LC ₅₀ Acute inhalation toxicity (gas): >25,000 mg/kg 6 h (Rat)		
LC ₅₀ Acute	inhalation toxicity (vapour): >25 mg/L 6 h (Rat) OECD Test Guideline 403	

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LD₅₀ oral: >15,000 mg/kg (Rat) MSDS Distributor

LD₅₀ dermal: >5,000 mg/kg (Rabbit) MSDS Distributor

LC₅₀ Acute inhalation toxicity (vapour): >5,000 mg/L 4 h (rat)

LC₅₀ Acute inhalation toxicity (dust/mist): >6.1 mg/L 4 h (Rat) MSDS Distributor

LD₅₀ oral: >5,000 mg/kg (Rat) Under the test conditions, MRD-83-207 is not classified according to the criteria of

Annex VI to the Directive 67/548/EEC and CLP Regulation 1272/2008.

LD₅₀ dermal: >1,082 mg/kg (Rat) MRD83-207 is not classified according to the criteria of Annex VI to the Directive

67/548/EEC and CLP Regulation 1272/2008.

LC₅₀ Acute inhalation toxicity (gas): ≥5.266 – 5.991 mg/L 4 h (Rat) Under the conditions of the test, C14-C16 n-Paraffins are not classified according to the criteria of Annex VI to the Directive 67/548/EEC and EU GHS.

Hydrocarbons, C12-C15, n-alkanes, isoalkanes < 2% aromatics EC No.: 920-107-4

LD₅₀ oral: >5,000 – 15,000 mg/kg (rat) The LD₅₀ for MRD-77-10 following oral gavage was >15 g/kg . Classification as an oral toxicant is not warranted under the new Regulation (EC) 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP) or under Directive 67/518/EEC for dangerous substances and Directive 1999/45/EC for preparations.

LD₅₀ dermal: ≥3,160 mg/kg (rabbit)

LC₅₀ Acute inhalation toxicity (gas): >0.004951 - 0.0093 g/m³ 4 h (rat)

butanone CAS No.: 78-93-3 EC No.: 201-159-0

LD₅₀ oral: 2,740 mg/kg (Rat) Toxicology and Applied Pharmacology. Vol. 19, Pg. 699, 1971.

LD₅₀ dermal: 6,480 mg/kg (Rabbit) Shell Chemical Company. Vol. MSDS-5390-4,

Acute oral toxicity:

Harmful if swallowed.

Acute dermal toxicity:

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

Acute inhalation toxicity:

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

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.

Additional information:

No data available

11.2. Information on other hazards

No data available

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SECTION 12: Ecological information

* 12.1. Toxicity

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

LC₅₀: 9,640 mg/L 4 d (fish, Pimephales promelas (fathead minnow))

LC₅₀: 9,714 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))

NOEC: 250 mg/L 4 d (Algae/water plant, Tetrahymena thermophilia)

NOEC: 754 mg/L 2 d (Algae/water plant)

LC50: 9,640 mg/L 4 d (fish, Pimephales promelas) OECD Test Guideline 203

EC₅₀: >100 mg/L 3 d (Algae/water plant, Scenedesmus subspicatus)

LOEC: 1,000 mg/L (Algae/water plant, Bacteria)

LC₅₀: 10 - ≤100 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) MSDS Distributor

LC₅₀: 10 - ≤100 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) MSDS Distributor

LC50: >100 mg/L (Algae/water plant) MSDS Distributor

LC₅₀: >1,000 mg/L (Mikroorganismen) MSDS Distributor

LC₅₀: >10 - <30 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))

EC₅₀: >1,000 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) EL 50 SDB BR

EC50: >22 - <46 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) EL 50 SDB BR

NOEC: <1 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) NOELR SDB BR

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics EC No.: 927-632-8

LC50: 1,000 mg/L 4 d (crustaceans, Corophium volutator) mg/kg Sediment DW

 LC_{50} : >1,082 - 87,556 mg/L 4 d (fish, Scophthalmus maximus) LL50/LC₅₀ see GUIDANCE DOCUMENT ON AQUATIC TOXICITY TESTING OF DIFFICULT SUBSTANCES AND MIXTURES"

EC₅₀: 1,000 - 10,000 mg/L 4 d (Algae/water plant) LL50/LC₅₀ see GUIDANCE DOCUMENT ON AQUATIC TOXICITY TESTING OF DIFFICULT SUBSTANCES AND MIXTURES"

LC₅₀: >1,000 mg/L 2 d (fish, Oncorhynchus mykiss) ECHA

EC₅₀: >1,000 mg/L 3 d (Algae/water plant) ECHA

NOEC: >1,000 mg/L -∞ h (fish, Oncorhynchus mykiss) NOELR (No Observed Effect Loading Rate)

NOEC: >1,000 mg/L -∞ h (crustaceans, Daphnia magna) NOELR (No Observed Effect Loading Rate)

butanone CAS No.: 78-93-3 EC No.: 201-159-0

LC₅₀: 3,220 – 3,220 mg/L 4 d (fish, Pimephales promelas) Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott 1984 Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Vol. 1. Center for Lake Superior Environmental Stud., Univ.of Wisconsin-Superior, Superior, WI:414

EC₅₀: 5,090 – 5,090 mg/L 2 d (crustaceans) Randall, T.L., and P.V. Knopp 1980. Detoxification of Specific Organic Substances by Wet Oxidation. J.Water Pollut.Control Fed. 52(8):2117-2130

EC₅₀: 2,029 mg/L 4 d (Algae/water plant) ECHA

NOEC: 68 mg/L 2 d (crustaceans) ECHA

Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

* 12.2. Persistence and degradability

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

Biodegradation: Yes, rapidly

Remark: Empfohlener Wert der LOG KOW Datenbank

Biodegradation: Yes, rapidly

Remark: Bioakkumulation potentiell möglich, Schädlich für Fische.

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Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics EC No.: 927-632-8

Biodegradation: Yes, rapidly Remark: readily biodegradable

Hydrocarbons, C12-C15, n-alkanes, isoalkanes < 2% aromatics EC No.: 920-107-4

Biodegradation: Yes, rapidly Remark: Bioakkumulation ist möglich.

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Biodegradation: Yes, rapidly

12.3. Bioaccumulative potential

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

Log Kow: 0.05

Hydrocarbons, C12-C15, n-alkanes, isoalkanes < 2% aromatics EC No.: 920-107-4

Log Kow: 5.03

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Log K_{OW}: 0.3

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

propan-2-ol CAS No.: 67-63-0 EC No.: 200-661-7

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics EC No.: 927-632-8

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Hydrocarbons, C12-C15, n-alkanes, isoalkanes < 2% aromatics EC No.: 920-107-4

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

ſ	14 06 03 *	(14) WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08)
1		(06) waste organic solvents, refrigerants and foam/aerosol propellants
1		(03 *) other solvents and solvent mixtures

^{*:} Evidence for disposal must be provided.

Directive 2008/98/EC (Waste Framework Directive)

HP 3	Flammable
HP 14	Ecotoxic

Remark:

Изхвърляне съгласно Наредбата за предотвратяване и обезвреждане на отпадъци (VVEA, ehem. TVA) ШВЕЙЦАРИЯ - Код на отпадъците: 1101 - Нехалогенирани разтворители

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Waste code packaging

15 01 06	(15) WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING
	NOT OTHERWISE SPECIFIED
	(01) packaging (including separately collected municipal packaging waste)
	(06) mixed packaging

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

Other disposal recommendations:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Collect in closed and suitable containers for disposal.

13.2. Additional information

Return to Distributor...

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or	ID number	•	
UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper ship	ping name		
FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.
14.3. Transport haza	rd class(es)		
3	3	3	3
14.4. Packing group		1 -	
II	II	II	II
14.5. Environmental	hazards		
¥2	(Y)	MARINE POLLUTANT	¥2
14.6. Special precau	tions for user	-	
Special Provisions: 640D	Special Provisions: 640D	Special Provisions: 640D	Special Provisions: 640D
Limited quantity (LQ):	Limited quantity (LQ):	Limited quantity (LQ):	Limited quantity (LQ):
Hazard identification number (Kemler No.):	Classification code: F1	EmS-No.: F-E, S-E	
Classification code: F1			
Tunnel restriction code: (D/E)			

14.7. Maritime transport in bulk according to IMO instruments

not determined.

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SECTION 15: Regulatory information

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

15.1.1. EU legislation

Restrictions on use:

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

Other regulations (EU):

Hazard categories:

- P5a Flammable Liquids, Category 1 or 2
- P5b Flammable liquids
- P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 75.9 weight-%

15.1.2. National regulations

[SI] National regulations

Other regulations, restrictions and prohibition regulations

\P:a0959181-3dd2-448e-8186-c33aa8dc0b55\|\P:d206fb0c-ce42-4d5c-8ffc-0127a253b285\ \P:eb7a6d4f-81b7-40c9-a3bd-975c6431bcd2\|\P:7cec6848-b577-43e9-8bdf-67f79be232a5\

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

* 16.1. Indication of changes

3.2.	Mixtures	
6.2.	Environmental precautions	
7.1.	Precautions for safe handling	
8.1.	Control parameters	
9.1.	Information on basic physical and chemical properties	
10.1.	Reactivity	
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008	
12.1.	Toxicity	
12.2.	Persistence and degradability	
12.3.	Bioaccumulative potential	
12.5.	Results of PBT and vPvB assessment	
13.1.	. Waste treatment methods	
16.1.	Indication of changes	

16.2. Abbreviations and acronyms

10.2. AD	neviations and acronyms
AC	Article Category
ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DIN	German Institute for Standardization / German Industrial Standard
DNEL	derived no-effect level
EC ₅₀	Effective Concentration 50%
ECHA	European Chemicals Agency
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue

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ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
IMO International Maritime Organization

IUCLID International Uniform Chemical Information Database

KG body weight

LC₅₀ Lethal (fatal) Concentration 50%

LD₅₀ Lethal (fatal) Dose 50%

MAK Maximum concentration in the workplace air (CH)

NFPA National Fire Protection Association

NIOSH National Institute for Occupational Safety & Health

NOEC No Observed Effect Concentration

OECD Organisation for Economic Cooperation and Development

OEL Threshold Limit Value

OSHA Occupational Safety & Health Administration PBT persistent and bioaccumulative and toxic

PC Product category

PNEC Predicted No Effect Concentration

REACH Registration, Evaluation and Authorization of Chemicals RID Dangerous goods regulations for transport by rail

SCL Specific concentration limit

SU use category

TRGS Technische Regeln für Gefahrstoffe

UN United Nations

VOC Volatile organic compounds ZNS central nervous system

For abbreviations and acronyms, see ECHA: Guidance on information requirements and chemical safety assessment, Chapter R.20 (list of terms and abbreviations).

16.3. Key literature references and sources for data

No data available

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids (Flam. Liq. 2)	H225: Highly flammable liquid and vapour.	On basis of test data.
Acute toxicity (oral) (Acute Tox. 4)	H302: Harmful if swallowed.	Calculation method.
Serious eye damage/eye irritation (Eye Irrit. 2)	H319: Causes serious eye irritation.	Calculation method.
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	Calculation method.
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	Hazard statements	
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	
H304	May be fatal if swallowed and enters airways.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
H412	Harmful to aquatic life with long lasting effects.	

16.6. Training advice

No data available

according to Regulation (EC) No. 1907/2006 (REACH)

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16.7. Additional 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.		
* Data changed compared with the previous version.		