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

1.1. Product identifier

173 System Agent Concentrate MP17300200A

UFI: EGT2-X03K-900Q-VYPJ

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

Use of the substance/mixture

Additive

1.3. Details of the supplier of the safety data sheet

Company name: TUNAP GmbH & Co. KG
Street: Buergermeister-Seidl-Strasse 2
Place: D-82515 Wolfratshausen
Telephone: +49 (0) 8171/1600-0 Telefax: +49 (0) 8171/1600-40
E-mail: sdb@tunap.com
Internet: www.tunap.com

1.4. Emergency telephone number:

111 NHS (National Health Service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225
Skin Irrit. 2; H315
Eye Dam. 1; H318
STOT SE 3; H335 H336
Asp. Tox. 1; H304

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates
2-methylpropan-1-ol; iso-butanol
2-Propanol
Hydrocarbons, C10-C13, n-alkanes, <2% aromatics

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
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	Wear protective gloves and eye protection/face protection.
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.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P304+P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates			25 - < 50 %
	919-857-5		01-2119463258-33	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1; H226 H336 H304 EUH066			
78-83-1	2-metylpropan-1-ol			25 - < 50 %
	201-148-0	603-108-00-1	01-2119484609-23	
	Flam. Liq. 3, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, STOT SE 3; H226 H315 H318 H335 H336			
67-63-0	2-Propanol			20 - < 25 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
1634-04-4	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane			5 - < 10 %
	216-653-1	603-181-00-X		
	Flam. Liq. 2, Skin Irrit. 2; H225 H315			
337367-30-3	2-methylpropene homopolymer, hydroformylation products, reaction products with ammonia			1 - < 3 %
	Skin Irrit. 2, Aquatic Chronic 3; H315 H412			
129813-66-7	Hydrocarbons, C10-C13, n-alkanes, <2% aromatics			1 - < 3 %
	929-018-5		01-2119475608-26	
	Asp. Tox. 1; H304 EUH066			
173140-85-7	Oxirane, ethyl-, homopolymer, monoisotridecyl ether			1 - < 3 %
	Skin Irrit. 2; H315			

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		
64742-48-9	919-857-5	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates	25 - < 50 %
	inhalation: LC50 = 4951 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
78-83-1	201-148-0	2-metylpropan-1-ol	25 - < 50 %
	inhalation: LC50 = > 24 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2830 mg/kg		
67-63-0	200-661-7	2-Propanol	20 - < 25 %
	inhalation: LC50 = 47,5 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 5280 mg/kg		
1634-04-4	216-653-1	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	5 - < 10 %
	inhalation: LC50 = 85 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3866 mg/kg		
129813-66-7	929-018-5	Hydrocarbons, C10-C13, n-alkanes, <2% aromatics	1 - < 3 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 15000 mg/kg		

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

Headache, nausea, dizziness, fatigue, skin irritation

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

Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO2). Extinguishing powder.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO2, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard

area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

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

General advice

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear personal protection equipment.

For non-emergency personnel

First aider: Pay attention to self-protection!

For emergency responders

Fight fire with normal precautions from a reasonable distance.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

6.3. Methods and material for containment and cleaning up

For containment

Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

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

Advice on safe handling

Observe instructions for use.
Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
When using do not eat, drink, smoke, sniff.
Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

Further information on handling

Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Observe legal regulations and provisions.

Hints on joint storage

Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

Further information on storage conditions

Store in a cool dry place. Observe legal regulations and provisions.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
78-83-1	2-Methylpropan-1-ol	50	154		TWA (8 h)	WEL
		75	231		STEL (15 min)	WEL
1634-04-4	Methyl-tert-butyl ether	50	183.5		TWA (8 h)	WEL
		100	367		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates		
Worker DNEL, long-term	inhalation	systemic	1500 mg/m³
Worker DNEL, long-term	dermal	systemic	300 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	900 mg/m³
Consumer DNEL, long-term	dermal	systemic	300 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	300 mg/kg bw/day

Additional advice on limit values

a no restriction
b End of exposure or end of shift
c at long-term exposure:
d before next shift

blood (B)
Urine (U)

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.
EN 166

Hand protection

Protect skin by using skin protective cream. 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.
Suitable material: NBR (Nitrile rubber) Breakthrough time: 480min
Thickness of the glove material 0,45 mm
EN ISO 374

Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.
When exceeding the relevant workplace exposure limits, note the following:
Suitable respiratory protective equipment: Combination filter device (DIN EN 141)..
Filtering device with filter or ventilator filtering device of type: A
Observe the wear time limits as specified by the manufacturer.
Observe legal regulations and provisions.

Environmental exposure controls

Observe legal regulations and provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	neon yellow
Odour:	solvent like

		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	55 °C	
Flammability:	not applicable not applicable	
Lower explosion limits:	0,6 vol. %	
Upper explosion limits:	12 vol. %	
Flash point:	-28 °C	ISO 3679
Decomposition temperature:	not determined	
pH-Value (at 20 °C):		DIN 19268
Viscosity / kinematic: (at 40 °C)	< 20,5 mm²/s	DIN EN ISO 3104
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.	

Solubility in other solvents
not determined

Partition coefficient n-octanol/water:	not determined	
Vapour pressure:	not determined	
Density (at 20 °C):	0,795 g/cm³	DIN 51757
Relative vapour density:	not determined	

9.2. Other information

Information with regard to physical hazard classes

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties
Not oxidising.

Other safety characteristics

Evaporation rate:	not determined	
Solid content:	not determined	
Viscosity / dynamic:		DIN 53019-1
Flow time: (at 20 °C)		DIN EN ISO 2431

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges.

10.5. Incompatible materials

Oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO2, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1988)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1989)	OECD Guideline 402
	inhalation (4 h) vapour	LC50	4951 mg/l	Rat		
78-83-1	2-metylpropan-1-ol					
	oral	LD50 mg/kg	> 2830	Rat		
	dermal	LD50 mg/kg	> 2000	Rat		
	inhalation (4 h) vapour	LC50	> 24 mg/l	Rat		
67-63-0	2-Propanol					
	oral	LD50 mg/kg	5280	Rat		
	dermal	LD50 mg/kg	> 2000	Rabbit		
	inhalation (4 h) vapour	LC50	47,5 mg/l	Rat		
1634-04-4	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane					
	oral	LD50 mg/kg	3866	Rat		
	dermal	LD50 mg/kg	> 2000	Rat		
	inhalation (4 h) vapour	LC50	85 mg/l	Rat		
129813-66-7	Hydrocarbons, C10-C13, n-alkanes, <2% aromatics					
	oral	LD50 mg/kg	> 15000	Rat	Study report (1977)	OECD Guideline 423
	dermal	LD50 mg/kg	> 5000	Rabbit	Study report (1993)	OECD Guideline 402

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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.

No indications of human carcinogenicity exist.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

STOT-single exposure

May cause respiratory irritation. (2-metylpropan-1-ol)

May cause drowsiness or dizziness. (Hydrocarbons, C9 - C 11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; 2-metylpropan-1-ol; 2-Propanol)

STOT-repeated exposure

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

Aspiration hazard

May be fatal if swallowed and enters airways.

Information on likely routes of exposure

Ingestion, Inhalation, Skin contact, Eye contact.
Reference to other sections: 2.1, 4.2.

Specific effects in experiment on an animal

No information available.

11.2. Information on other hazards

Endocrine disrupting properties

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

Other information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.
The product is not: Ecotoxic.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Pimephales promelas		
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Pseudokirchneriella subcapitata	REACh Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna		
78-83-1	2-metylpropan-1-ol						
	Acute fish toxicity	LC50 mg/l	1430	96 h	Pimephales promelas		
	Acute algae toxicity	ErC50 mg/l	1250		Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	1439	48 h	Daphnia magna		
67-63-0	2-Propanol						
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas		
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna		
1634-04-4	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane						
	Acute fish toxicity	LC50	672 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50 mg/l	> 800	72 h	Desmodesmus subspicatus		
	Acute crustacea toxicity	EC50	651 mg/l	48 h	Daphnia magna		
129813-66-7	Hydrocarbons, C10-C13, n-alkanes, <2% aromatics						
	Acute algae toxicity	ErC50 mg/l	57161	72 h	Skeletonema costatum	Study report (1997)	ISO 10253
	Acute crustacea toxicity	EC50 mg/l	ca. 0,2	48 h	Daphnia magna	Study report (1987)	other: As described in: The evaluation o
	Fish toxicity	NOEC mg/l	0,139	28 d	Oncorhynchus mykiss	REACh Registration Dossier	The aquatic toxicity was estimated by a
	Crustacea toxicity	NOEC mg/l	0,361	21 d	Daphnia magna	REACh Registration Dossier	The aquatic toxicity was estimated by a

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates			
	OECD Guideline 301 F	80%	28	ECHA
	leicht biologisch abbaubar			
67-63-0	2-Propanol			
	OECD Prüfrichtlinie 301E	95 %	21	
	leicht biologisch abbaubar			
1634-04-4	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane			
	OECD 301 B	2	28	ECHA
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates	5
78-83-1	2-metylpropan-1-ol	0,79
67-63-0	2-Propanol	0,05
1634-04-4	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	0,94

BCF

CAS No	Chemical name	BCF	Species	Source
64742-48-9	Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates	144,3	calculated	Other company data (
129813-66-7	Hydrocarbons, C10-C13, n-alkanes, <2% aromatics	144,3	calculated	Other company data (

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 UK REACH.
The product has not been tested.

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

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

List of Wastes Code - contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

Contaminated packaging

Water (with cleaning agent). Completely emptied packages can be recycled.

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. (Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; ISOBUTANOL (ISOBUTYL ALCOHOL))
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. (Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; ISOBUTANOL (ISOBUTYL ALCOHOL))
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

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; ISOBUTANOL)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Marine pollutant:	no
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. (Hydrocarbons, C9 - C11, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; ISOBUTANOL)
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: Combustible liquid.

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

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 40, Entry 75

Directive 2010/75/EU on industrial emissions:	No information available.
Directive 2004/42/EC on VOC in paints and varnishes:	No information available.

Additional information

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

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

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

Flam. Liq: Flammable liquids
Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye irritation
STOT SE: Specific target organ toxicity - single exposure
Aquatic Chronic: Chronic aquatic hazard
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
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)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL: Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
ATEL (EC): Short Term Exposure Limit
LC50: Lethal Concentration
EC50:half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H335	Calculation method
STOT SE 3; H336	Calculation method
Asp. Tox. 1; H304	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
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 data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)