SAFETY DATA SHEET

In accordance with 1907/2006 annex II 2015/830 and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Amendment date 2019-08-16
Replaces issued SDS 2019-08-06
Revision date 2019-08-06
Version number 3.1

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

1.1. Product identifier

Trade name	Spolarvätska FB-18

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

Identified uses	Windscreen washing fluid

1.3. Details of the supplier of the safety data sheet

Company	Arom-dekor Kemi AB Europavägen 1 51291 SEXDREGA Sweden
Telephone	0320 60500
E-mail	info@aromdekor.se

1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids (Category 3), H226

2.2. Label elements

Hazard pictogram

Signal word	Warning
Hazard statement	
H226	Flammable liquid and vapour
Precautionary statements	
P102	Keep out of reach of children
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed
P280	Wear protective gloves, protective clothing and eye or face protection
P403+P235	Store in a well-ventilated place. Keep cool
P501	Dispose of contents and container to authorised waste disposal facility

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
ETHANOL		
CAS No: 64-17-5 EC No: 200-578-6 Index No: 603-002-00-5 REACH: 01-2119457610-43	Flam Liq 2, Eye Irrit 2; H225, H319	30 - 50 %
ISOBUTYL METHYL KETONE		
CAS No: 108-10-1 EC No: 203-550-1 Index No: 606-004-00-4 REACH: 01-2119473980-30	Flam Liq 2, Acute Tox 4*vapour*, Eye Irrit 2, STOT SE 3*resp*; H225, H332, EUH066, H319, H335	<1 %
BUTANONE		
CAS No: 78-93-3 EC No: 201-159-0 Index No: 606-002-00-3 REACH: 01-2119457290-43	Flam Liq 2, Eye Irrit 2, STOT SE 3*drow*; H225, EUH066, H319, H336	<1 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

Never attempt to administer liquid, or anything else, to an unconscious person via the mouth.

In case of concern, or if symptoms persist, call a doctor/physician.

Never leave a injured person alone. Their condition may rapidly worsen, sometimes several hours after the poisoning.

Upon breathing in

Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical attention.

Upon eye contact

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

Upon skin contact

Normal washing of the skin is considered sufficient; If nevertheless symptoms do occur, contact a physician.

Remove contaminated clothes.

Upon ingestion

Immediately drink a couple glasses of water, milk or cream.

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

No further relevant information available.

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

Symptomatic treatment.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing agents

Extinguish with powder or carbon dioxide. Fire-fighting personnel may use dispersed water jets.

Unsuitable extinguishing agents

Do not extinguish with a direct water jet.

5.2. Special hazards arising from the substance or mixture

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning.

Emits flammable vapours which may form an explosive mixture with air.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.
Any extinguishing should be executed from a good distance, due to the development of intense heat.
In case of fire use a respirator mask.
Wear full protective clothing.
Vapors are heavier than air and may spread along floors.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of spillage in protected water, call the emergency services immediately, tel. 112 (in Europe).
Avoid inhalation and exposure to skin and eyes.
Gas mask with an A type filter (brown), or a dust filter IIb (P2), may be required when decontaminating spillage.
Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.
Chemical protection suits should be worn for all salvage and decontamination work.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

6.3. Methods and material for containment and cleaning up

Clean-up of repeated spillages, or larger spillages of this product, should be executed by professional decontamination workers.
Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.
Wash off with large quantities of water (50-100 volume parts). Dry up afterwards.
Residues left behind after cleaning shall be treated as hazardous waste. For further information, contact the local authority sanitisation works. Present this safety data sheet.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not inhale the fumes and avoid exposure to skin, eyes and clothing.
Store this product separately from food items and keep it out of the reach of children and pets.
Handle in a fume hood or in a space which is equally safe.
Do not eat, drink or smoke in premises where this product is handled.
Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.
Open fires, hot objects, spark formation, or other sources of ignition, are not allowed in the premises where this product is handled. Prevent build up of static electricity by utilising a semi-conducting floor and shoe soles and keep humidity above 50%.
Wash your hands after using the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in a well-ventilated space.
The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.
Store only in the original package.
Do not store above normal room temperature.

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1. National limit values
ETHANOL

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 1000 ppm / 1920 mg/m^3

ISOBUTYL METHYL KETONE

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 50 ppm / 208 mg/m^3
Short term exposure limit (STEL) 100 ppm / 416 mg/m^3
Note Sk,BMGV

BUTANONE

United Kingdom (EH40/2005)

Time-weighted-average exposure limit (TWA) 200 ppm / 600 mg/m^3
Short term exposure limit (STEL) 300 ppm / 899 mg/m^3
Note Sk,BMGV

Explanations of abbreviations are given in Section 16b

DNEL
BUTANONE

	Type of exposure	**Route of exposure**	**Value**
Consumer	Chronic Systemic	Inhalation	106 mg/m^3
Worker	Chronic Systemic	Dermal	1161 mg/kg
Worker	Chronic Systemic	Inhalation	600 mg/m^3
Consumer	Chronic Systemic	Oral	31 mg/kg
Consumer	Chronic Systemic	Dermal	412 mg/kg

PNEC
BUTANONE

Environmental protection target	PNEC value
Fresh water	55.8 mg/l
Freshwater sediments	284.74 mg/kg
Marine water	55.8 mg/l
Marine sediments	284.7 mg/kg
Microorganisms in sewage treatment	709 mg/l
Soil (agricultural)	22.5 mg/kg

8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

8.2.1. Appropriate engineering controls

The place of work shall primarily be planned so that personal protective equipment is only required on irregular occasions, in case of servicing or breakdown, for example.

Handle in premises which have modern ventilation standards.

Gas masks with filters, intended in the case of dangerous chemicals, should be available so that these can be put on outside the location of where spillage or accident might occur.

Emergency showers and eye-rinsing facilities must be available at the workplace.

Maintenance and service of personal protective equipment shall be included in the works plan for internal supervision. All inspections and remedial measures shall be documented.

Eye/face protection

Eye protection should be worn if there is any danger of direct exposure or splashing.

Skin protection

Do not use clothing made of synthetic material which may give rise to static electricity.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.

Respiratory protection

A breathing mask of the A filter (brown) type, may be required.

8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a)	Appearance	Form: liquid. Colour: blue.
b)	Odour	like alcohol
c)	Odour threshold	Not indicated
d)	pH	Not indicated
e)	Melting point/freezing point	Not indicated
f)	Initial boiling point and boiling range	95 °C
g)	Flash point	31.0 °C
h)	Evaporation rate	Not indicated
i)	Flammability (solid, gas)	Not applicable
j)	Upper/lower flammability or explosive limits	Not indicated
k)	Vapour pressure	Not indicated
l)	Vapour density	Not indicated
m)	Relative density	Not indicated
n)	Solubility	Solubility in water: Unlimited solubility
o)	Partition coefficient: n-octanol/water	Not applicable
p)	Auto-ignition temperature	Not indicated
q)	Decomposition temperature	Not indicated
r)	Viscosity	Not indicated
s)	Explosive properties	Not applicable
t)	Oxidising properties	Not applicable

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known during normal use.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.

10.5. Incompatible materials

Avoid contact with oxidizers.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

Acute toxicity

The product is not classified as acutely toxic.

ISOBUTYL METHYL KETONE

LD50 rabbit 24h: > 16000 mg/L Dermally
LC50 rat 4h: 8.2 mg/L Inhalation
LD50 rat 24h: 2080 mg/L Orally

BUTANONE

LD50 rabbit 24h: > 8000 mg/kg Dermally
LC50 rat 4h: 34 mg/L Inhalation
LC50 rat 4h: 12000 ppmV Inhalation
LC50 rat 8h: 23.5 mg/l Inhalation
LD50 rat 24h: 5600 mg/kg Orally

Skin corrosion/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to skin. Mild irritation may occur on prolonged or repeated exposure.

Serious eye damage/irritation

The mixture is judged as a whole and is classified to be neither corrosive nor irritant to the eyes. Mild irritation may occur on prolonged or repeated exposure.

Respiratory or skin sensitisation

The product is not classified as sensitising.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant .

STOT-single exposure

No known hazards for occasional exposure.

STOT-repeated exposure

No known hazards for repeated exposure.

Aspiration hazard

The product is not classified as being toxic for aspiration.

SECTION 12: Ecological information

12.1. Toxicity

The product, according to current criteria and based on available information, is considered not to be harmful to the environment.

ISOBUTYL METHYL KETONE

LC50 fathead minnow (Pimephales promelas) 96h: 1 - 514 mg/L
EC50 Algae 96h: 400 mg/L
EC50 Freshwater water flea (Daphnia magna) 48 h: 170 mg/L

BUTANONE

LC50 fathead minnow (Pimephales promelas) 96h: 2993 mg/L
LC50 Freshwater water flea (Daphnia magna) 48h: 520 mg/L
LC50 Fish 96h: 3 mg/L
IC50 Algae 72h: 110 mg/l

12.2. Persistence and degradability

No information about persistence or degradability exists but there is no reason to suppose that the product is persistent.

12.3. Bioaccumulative potential

No information exists on bioaccumulation, but there is no cause for concern in respect of this.

12.4. Mobility in soil

No information about mobility in the nature exists but there is no reason to suppose the product to be ecologically harmful because of this.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

This product degrades rapidly but large emission within a short period of time may be harmful to the local environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste handling of the product

Discarded products must be disposed of as hazardous waste in accordance with regulations.
Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.
Avoid discharge into sewers.
Observe local regulations.
See also national waste regulations.

Classification according to 2008/98

Recommended LoW-code: 14 06 03 Other solvents and solvent mixtures

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

1987

14.2. UN proper shipping name

ALCOHOLS, N.O.S. (ETHANOL)

14.3. Transport hazard class(es)
Class

3: Flammable liquids

Classification code (ADR/RID)

F1: Flammable liquids having a flash-point of or below 60 °C

Subsidiary risk (IMDG)

No subsidary risk according to IMDG

Labels

14.4. Packing group

Packing group III

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user
Tunnel restrictions

Tunnel category: D/E

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres
Stowage category A (IMDG)
Emergency Schedule (EmS) for FIRE (IMDG) F-E
Emergency Schedule (EmS) for SPILLAGE (IMDG) S-D

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet
Revisions of this document

Earlier versions

2019-08-06 Changes in section(s) 1, 8.

16b. Legend to abbreviations and acronyms used in the safety data sheet
Full texts for Hazard Class and Category Code mentioned in section 3

Flam Liq 2	Flammable liquids (Category 2)
Eye Irrit 2	Irritates eyes (Category 2)
Acute Tox 4*vapour*	Acute toxicity (Category 4 vapours)
STOT SE 3*resp*	Specific target organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)
STOT SE 3*drow*	Specific target organ toxicity - Single exposure (Category 3, Narcosis effect)

Explanations of the abbreviations in Section 8
United Kingdom (EH40/2005 (Third edition, published 2018))

Sk	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity
BMGV	Biological monitoring guidance values

Explanations of the abbreviations in Section 14

ADR	European Agreement concerning the International Transport of Dangerous Goods by Road
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
IMDG	International Maritime Dangerous Goods Code
ICAO	International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)
IATA	The International Air Transport Association

Tunnel restriction code: D/E; Transport by bulk or via tank: Passage forbidden through tunnels of category D and E, Other transportation means: Passage forbidden through tunnels of category E

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

16c. Key literature references and sources for data
Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I , as updated to 2019-08-16.
Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
2015/830	COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
1272/2008	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
EH40/2005	EH40/2005 Workplace exposure limits
89/391	COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
98/24	COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)
2008/98	DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives
1907/2006	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I , where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI .

16e. List of relevant hazard statements and/or precautionary statements
Full texts for hazard statements mentioned in section 3

H225 Highly flammable liquid and vapour
H319 Causes serious eye irritation
H332 Harmful if inhaled
EUH066 Repeated exposure may cause skin dryness or cracking
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment
Warning for misuse

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Not indicated

Editorial information

This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se