

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Asplit® LF Solution Conductive

Revision date: 19.09.2023

Product code: 00359-1337

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Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Vapours may form explosive mixture with air.

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

Mixture containing following substances with additives :

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	GHS Classification			
98-01-1	2-Furaldehyde			< 25 %
	202-627-7	605-010-00-4	01-2119486861-27	
	Carc. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H351 H331 H301 H312 H315 H319 H335			
98-00-0	Furfuryl alcohol			< 5 %
	202-626-1	603-018-00-2	01-2119493965-18	
	Carc. 2, Acute Tox. 3, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, STOT SE 3, STOT RE 2; H351 H331 H312 H302 H319 H335 H373			
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine			< 1 %
	217-164-6		01-2119970215-39	
	Eye Dam. 1, Skin Sens. 1; H318 H317			

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			
98-01-1	202-627-7	2-Furaldehyde	< 25 %	
	inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: LD50 = 65 mg/kg			
98-00-0	202-626-1	Furfuryl alcohol	< 5 %	
	inhalation: LC50 = 0,935 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 1100 mg/kg; oral: ATE = 500 mg/kg			

SECTION 4: First aid measures**4.1. Description of first aid measures**



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General information

Remove contaminated soaked clothing immediately.
In the event of persistent symptoms receive medical treatment.
Take away from danger area and lay down affected person.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.
Seek medical treatment immediately.

After contact with skin

Wash off immediately with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult (eye) doctor immediately.

After ingestion

Do not induce vomiting.
Summon a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Induce vomiting only upon the advice of a physician.

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

Harmful in contact with skin or if inhaled.
Toxic if swallowed.
Causes serious eye irritation.
Causes skin irritation.
May cause respiratory irritation.
Suspected of causing cancer.

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

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
carbon monoxide and carbon dioxide
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Cool containers at risk with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Ensure adequate ventilation.



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Remove persons to safety.
Keep away sources of ignition.

For non-emergency personnel

Do not breathe vapours.
Avoid contact with skin, eyes and clothing.

For emergency responders

In case of vapour formation use respirator.
Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
Do not discharge into the subsoil/soil.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Informations for disposal look up chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
Vapours are heavier than air and spread along ground.
Use only in thoroughly ventilated areas.
Provide suitable extraction at the processing machines.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.
Take measures against electrostatically charging.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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

Hints on joint storage

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Laminatecoating, dissipative

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
98-01-1	2-Furaldehyde (Furfural)	2	8		TWA (8 h)	
		5	20		STEL (15 min)	
98-00-0	Furfuryl alcohol	10	40		TWA (8 h)	
		15	60		STEL (15 min)	
7782-42-5	Graphite (all forms except fibres) (Respirable Fraction)	-	2		TWA (8 h)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
98-01-1	Furfural	Furoic acid	200 mg/L	Urine	End of shift

Additional advice on limit values

This product does not contain any substances for which a Workplace Exposure Limit has been set in concentrations above the limits.

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.
Pay attention to explosion protection rules.

Protective and hygiene measures

Do not inhale vapours.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Treat subsequently with skin cream.
Remove and wash contaminated clothes before re-use.

Eye/face protection

Tightly fitting goggles (EN 166).
Eye wash bottle with pure water (EN 15154).

Hand protection

Protective gloves resistant to chemicals made off butyl, Minimum coat thickness 0,7 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.
Protective gloves resistant to chemicals made off nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) approx. 30 minutes, i.e. protective glove <Camatril Velours 730> made by www.kcl.de.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection

Long sleeved clothing (DIN EN ISO 6530)
Solvent-resistant apron (EN 467).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

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

Physical state:	Liquid
Colour:	Black
Odour:	Characteristic

Test method

pH-Value: n. d.

Changes in the physical state

Melting point/freezing point: n. d.

Boiling point or initial boiling point and boiling range: n. d.

Sublimation point: n.a.

Softening point: n. d.

Flash point: 67 °C

Sustaining combustion: Sustaining combustion

Flammability

Solid/liquid: n.a.

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.

Lower explosion limits: 2,1 vol. % *)

Upper explosion limits: 19,3 vol. % *)

Auto-ignition temperature: 315 °C *)

Self-ignition temperature

Solid: n.a.

Gas: n.a.

Decomposition temperature: n. d.

Oxidizing properties

Not oxidising.

Vapour pressure:
(at 20 °C) ~ 1,4 hPa *)Density: 1,2 g/cm³

Bulk density: n.a.

Water solubility:
(at 20 °C) Insoluble**Solubility in other solvents**

n. d.

Partition coefficient n-octanol/water: n. d.

Viscosity / dynamic:
(at 23 °C) 2000 mPa·s

Viscosity / kinematic: n. d.

Flow time: n. d.

Relative vapour density: n. d.

Evaporation rate: n. d.

Solvent separation test: 0 %

Solvent content: 0 %



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9.2. Other information

*) 2-Furaldehyde

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidising agents.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.
Vapour/air mixtures are explosive at intensive warming.
Heating can release vapours which can be ignited.
Avoid temperatures above 25°C .

10.5. Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

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

Acute toxicity

Toxic if swallowed.
Harmful in contact with skin.
Harmful if inhaled.
LD50/oral/rat: 190 mg/kg
LD50/dermal/rabbit: 1600 mg/kg
LC50/inhalativ/rat: 1,5 mg/l (dust/mist) (4 h)

ATEmix calculated

ATE (oral) 265,1 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 8,140 mg/l; ATE (inhalation dust/mist) 1,786 mg/l

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (2-Furaldehyde; Furfuryl alcohol)
Germ cell mutagenicity: 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 respiratory irritation. (2-Furaldehyde)

STOT-repeated exposure

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

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Aspiration hazard

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

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

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

No data available

SECTION 12: Ecological information**12.1. Toxicity**

Ecological data are not available.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Hazard to waters.

Further information

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**Can be incinerated, when in compliance with local regulations.
Where possible recycling is preferred to disposal.**List of Wastes Code - residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

UN 2810

14.2. UN proper shipping name:

TOXIC LIQUID, ORGANIC, N.O.S. (2-Furaldehyde, Furfuryl alcohol)

14.3. Transport hazard class(es):

6.1

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14.4. Packing group:

Hazard label:

III

6.1



Classification code:

T1

Limited quantity:

5 L / 30 kg

Excepted quantity:

E1

Transport category:

2

Hazard No:

60

Tunnel restriction code:

E

Inland waterways transport (ADN)**14.1. UN number:**

UN 2810

14.2. UN proper shipping name:

TOXIC LIQUID, ORGANIC, N.O.S. (2-Furaldehyde, Furfuryl alcohol)

14.3. Transport hazard class(es):

6.1

14.4. Packing group:

III

Hazard label:

6.1



Classification code:

T1

Limited quantity:

5 L / 30 kg

Excepted quantity:

E1

Marine transport (IMDG)**14.1. UN number:**

UN 2810

14.2. UN proper shipping name:

TOXIC LIQUID, ORGANIC, N.O.S. (2-Furaldehyde, furfuryl alcohol)

14.3. Transport hazard class(es):

6.1

14.4. Packing group:

III

Hazard label:

6.1



Marine pollutant:

No

Limited quantity:

5 L / 30 kg

Excepted quantity:

E1

EmS:

F-A, S-A

Air transport (ICAO-TI/IATA-DGR)**14.1. UN number:**

UN 2810

14.2. UN proper shipping name:

TOXIC LIQUID, ORGANIC, N.O.S. (2-Furaldehyde, furfuryl alcohol, solution)

14.3. Transport hazard class(es):

6.1

14.4. Packing group:

III

Hazard label:

6.1



Limited quantity Passenger:

2 L

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Passenger LQ:	Y642	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:		655
IATA-max. quantity - Passenger:		60 L
IATA-packing instructions - Cargo:		663
IATA-max. quantity - Cargo:		220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Maritime transport in bulk according to IMO instruments

The transport takes place only in approved and appropriate packaging.

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 75

2004/42/EC (VOC):	< 30%
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
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Water hazard class (D):	2 - obviously hazardous to water
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Additional information

Consider Chemical prohibition regulation.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Changes**

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

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

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GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

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

Classification	Classification procedure
Acute Tox. 3; H301	Calculation method
Acute Tox. 4; H312	
Acute Tox. 4; H332	
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Carc. 2; H351	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H312+H332	Harmful in contact with skin or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

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