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

1.1 Product identifier

Trade name : ARALDITE® 64-1

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

Use of the Substance/Mixture : Adhesives and/or sealants

1.3 Details of the supplier of the safety data sheet

Company : Huntsman Advanced Materials (Europe)BVBA
Address : Everslaan 45
3078 Everberg
Belgium
Telephone : +41 61 299 20 41
Telefax : +41 61 299 20 40

E-mail address of person responsible for the SDS : Global_Product_EHS_AdMat@huntsman.com

1.4 Emergency telephone number

Emergency telephone number : 112 Ask for Poison Information
EUROPE: +32 35 75 1234
France ORFILA: +33(0)145425959
ASIA: +65 6336-6011
China: +86 20 39377888
+86 532 83889090
India: + 91 22 42 87 5333
Australia: 1800 786 152
New Zealand: 0800 767 437
USA: +1/800/424.9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341: Suspected of causing genetic defects.
Carcinogenicity, Category 1B	H350: May cause cancer.

Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :

H225	Highly flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist or vapours.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

Formaldehyde, oligomeric reaction products with phenol
toluene
phenol
formaldehyde

Additional Labelling:

Restricted to professional users.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Formaldehyde, oligomeric reaction products with phenol	9003-35-4 Polymer	Skin Sens. 1; H317	>= 30 - < 50
ethanol	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 20 - < 30
toluene	108-88-3 203-625-9 601-021-00-3 01-2119471310-51	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H361d STOT SE 3; H336 (Central nervous system) STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 10 - < 20
phenol	108-95-2 203-632-7 604-001-00-2 01-2119471329-32	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314	>= 3 - < 5

		Muta. 2; H341 STOT RE 2; H373 Aquatic Chronic 2; H411 specific concentration limit Skin Corr. 1B; H314 >= 3 % Skin Irrit. 2; H315 1 - < 3 % Eye Irrit. 2; H319 1 - < 3 %	
methanol	67-56-1 200-659-6 603-001-00-X 01-2119433307-44	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 STOT SE 1; H370 specific concentration limit STOT SE 1; H370 >= 10 % STOT SE 2; H371 3 - < 10 %	>= 1 - < 3
formaldehyde	50-00-0 200-001-8 605-001-00-5 01-2119488953-20	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Muta. 2; H341 Carc. 1B; H350 specific concentration limit Skin Corr. 1B; H314 >= 25 % Skin Irrit. 2; H315 5 - < 25 % Eye Irrit. 2; H319 5 - < 25 % STOT SE 3; H335 >= 5 % Skin Sens. 1; H317 >= 0,2 %	>= 0,2 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Avoid inhalation, ingestion and contact with skin and eyes.
No action shall be taken involving any personal risk or without suitable training.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

If inhaled : Consult a physician after significant exposure.
If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : Exercise caution when using a high volume water jet as it may scatter and spread fire

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For disposal considerations see section 13., See Section 1 for emergency contact information., For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Open drum carefully as content may be under pressure. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Keep in properly labelled containers.
Advice on common storage	:	For incompatible materials please refer to Section 10 of this SDS.
Recommended storage	:	2 - 40 °C

temperature

Further information on storage stability : Stable under normal conditions.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	NGV	500 ppm 1 000 mg/m3	SE AFS
		KGV	1 000 ppm 1 900 mg/m3	SE AFS
Further information	Indicative short term limit value shall be used as a recommended maximum value and should not be exceeded			
toluene	108-88-3	TWA	50 ppm 192 mg/m3	2006/15/EC
Further information	Indicative, Identifies the possibility of significant uptake through the skin			
		STEL	100 ppm 384 mg/m3	2006/15/EC
Further information	Indicative, Identifies the possibility of significant uptake through the skin			
		NGV	50 ppm 192 mg/m3	SE AFS
Further information	Substance can be easily absorbed through the skin.			
		KGV	100 ppm 384 mg/m3	SE AFS
Further information	Substance can be easily absorbed through the skin.			
phenol	108-95-2	TWA	2 ppm 8 mg/m3	2009/161/EU
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	4 ppm 16 mg/m3	2009/161/EU
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		NGV	1 ppm 4 mg/m3	SE AFS
Further information	Substance can be easily absorbed through the skin.			
		KGV	4 ppm 16 mg/m3	SE AFS
Further information	Substance can be easily absorbed through the skin.			
methanol	67-56-1	TWA	200 ppm 260 mg/m3	2006/15/EC
Further information	Indicative, Identifies the possibility of significant uptake through the skin			
		NGV	200 ppm 250 mg/m3	SE AFS

Further information	Substance can be easily absorbed through the skin.			
		KGV	250 ppm 350 mg/m3	SE AFS
Further information	Indicative short term limit value shall be used as a recommended maximum value and should not be exceeded, Substance can be easily absorbed through the skin.			
formaldehyde	50-00-0	NGV	0,3 ppm 0,37 mg/m3	SE AFS
Further information	Substance can be easily absorbed through the skin., Substance is carcinogenic., Substance is sensitizing.			
		KGV	0,6 ppm 0,74 mg/m3	SE AFS
Further information	Substance can be easily absorbed through the skin., Substance is carcinogenic., Substance is sensitizing.			
		STEL	0,6 ppm 0,74 mg/m3	2004/37/EC
Further information	Dermal sensitisation, Carcinogens or mutagens			
		TWA	0,3 ppm 0,37 mg/m3	2004/37/EC
Further information	Dermal sensitisation, Carcinogens or mutagens			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
ethanol	Consumers	Inhalation	Long-term systemic effects	950 mg/m3
	Consumers	Dermal	Short-term exposure, Local effects	950 mg/m3
	Consumers	Inhalation	Long-term systemic effects	114 mg/m3
	Consumers	Oral	Long-term systemic effects	87 mg/kg
	Consumers	Dermal	Long-term systemic effects	206 mg/kg bw/day
	Workers	Inhalation	Short-term exposure, Local effects	1900 mg/m3
	Workers	Inhalation	Short-term exposure, Local effects	950 mg/m3
	Workers	Dermal	Long-term systemic effects	343 mg/kg bw/day
methanol	Workers	Dermal	Systemic effects, Long-term exposure	40 mg/kg bw/day
	Workers	Inhalation	Systemic effects, Long-term exposure	260 mg/m3
	Workers	Inhalation	Local effects, Long-term exposure	260 mg/m3
	Workers	Dermal	Systemic effects, Short-term exposure	40 mg/kg bw/day
	Workers	Inhalation	Systemic effects, Short-term exposure	260 mg/m3
	Workers	Inhalation	Local effects, Short-term exposure	260 mg/m3
	Consumers	Dermal	Systemic effects, Long-term exposure	8 mg/kg bw/day

	Consumers	Inhalation	Systemic effects, Long-term exposure	50 mg/m3
	Consumers	Oral	Systemic effects, Long-term exposure	8 mg/kg bw/day
	Consumers	Inhalation	Local effects, Long-term exposure	50 mg/m3
	Consumers	Inhalation	Systemic effects, Short-term exposure	50 mg/m3
	Consumers	Inhalation	Local effects, Short-term exposure	50 mg/m3
	Consumers	Dermal	Systemic effects, Short-term exposure	8 mg/kg bw/day
	Consumers	Oral	Systemic effects, Short-term exposure	8 mg/kg bw/day
phenol	Workers	Inhalation	Long-term systemic effects	8 mg/m3
	Workers	Inhalation	Acute local effects	16 mg/m3
	Workers	Dermal	Long-term systemic effects	1,23 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1,32 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,4 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,4 mg/kg bw/day
toluene	Indirect exposure to humans via the environment	Inhalation	Acute systemic effects	384 mg/m3
	Workers	Inhalation	Long-term systemic effects	192 mg/m3
	Workers	Inhalation	Long-term local effects	192 mg/m3
	Workers	Inhalation	Acute local effects	384 mg/m3
	Workers	Inhalation	Acute systemic effects	384 mg/m3
	Workers	Dermal	Long-term systemic effects	384 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	56,5 mg/m3
	Consumers	Inhalation	Acute systemic effects	226 mg/m3
	Consumers	Inhalation	Long-term local effects	56,5 mg/m3
	Consumers	Inhalation	Acute local effects	226 mg/m3
	Consumers	Dermal	Long-term systemic effects	226 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	8,13 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
ethanol	Fresh water	0,96 mg/l

	Marine water	0,79 mg/l
	Intermittent use/release	2,75 mg/l
	Sewage treatment plant	580 mg/l
	Fresh water sediment	3,6 mg/kg
	Soil	0,63 mg/kg dry weight (d.w.)
	Oral	0,72 mg/kg
	Marine sediment	2,9 mg/kg dry weight (d.w.)
methanol	Fresh water	154 mg/l
	Remarks:Assessment Factors	
	Marine water	15,4 mg/l
	Remarks:Assessment Factors	
	Freshwater - intermittent	1540 mg/l
	Remarks:Assessment Factors	
	Sediment	570,4 mg/kg
	Remarks:Equilibrium method	
	Secondary Poisoning	
	Sewage treatment plant	100 mg/l
	Remarks:Assessment Factors	
	Soil	23,5 mg/kg
	Remarks:Equilibrium method	
phenol	Fresh water	0,0077 mg/l
	Marine water	0,0008 mg/l
	Freshwater - intermittent	0,031 mg/l
	Sewage treatment plant	2,1 mg/l
	Fresh water sediment	0,0915 mg/kg dry weight (d.w.)
	Marine sediment	0,0092 mg/kg dry weight (d.w.)
	Soil	0,136 mg/kg dry weight (d.w.)
toluene	Fresh water	0,68 mg/l
	Marine water	0,68 mg/l
	Freshwater - intermittent	0,68 mg/l
	Sewage treatment plant	13,61 mg/l
	Fresh water sediment	16,39 mg/kg
	Remarks:Equilibrium method	
	Marine sediment	16,39 mg/kg
	Remarks:Equilibrium method	
	Soil	2,89 mg/kg
	Remarks:Equilibrium method	

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : butyl-rubber
Break through time : > 8 h

Material	:	Ethyl Vinyl Alcohol Laminate (EVAL)
Break through time	:	> 8 h
Material	:	Nitrile rubber
Break through time	:	10 - 480 min
Remarks	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	brown
Odour	:	No data is available on the product itself.
Odour Threshold	:	No data is available on the product itself.
pH	:	substance/mixture is non-soluble (in water)
Melting point/freezing point	:	No data is available on the product itself.
Boiling point	:	> 125 °C
Flash point	:	4 °C(1 013 hPa) Method: ISO 2719, closed cup
Flammability (solid, gas)	:	No data is available on the product itself.
Upper explosion limit / Upper flammability limit	:	No data is available on the product itself.
Lower explosion limit / Lower flammability limit	:	No data is available on the product itself.
Vapour pressure	:	No data is available on the product itself.
Relative vapour density	:	No data is available on the product itself.

Relative density	:	No data is available on the product itself.
Density	:	1 g/cm3 (25 °C)
Solubility(ies)		
Water solubility	:	insoluble (20 °C)
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Auto-ignition temperature	:	No data is available on the product itself.
Decomposition temperature	:	> 200 °C
Viscosity		
Viscosity, dynamic	:	1 500 - 3 000 mPa.s (25 °C)
Viscosity, kinematic	:	> 20,5 mm2/s (40 °C) Method: estimated

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong bases
Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : carbon monoxide
carbon dioxide
Nitrogen oxides (NOx)

SECTION 11: Toxicological information

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

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2 000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2 000 mg/kg
Method: Calculation method

Components:

Formaldehyde, oligomeric reaction products with phenol:

Acute oral toxicity : LD50 (Rat): > 5 000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2 000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

ethanol:

Acute oral toxicity : LD50 (Rat, male and female): 10 470 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat, male and female): 116,9 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

LC50 (Rat): 95,6 - 125 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2 000 mg/kg
Method: OECD Test Guideline 402

toluene:

Acute oral toxicity : LD50 (Rat, male): 5 580 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): 28,1 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

GLP: no
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5 000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

phenol:

Acute oral toxicity : LD50 (Rat, male and female): 340 - 540 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat, female): > 900 mg/m3
Exposure time: 8 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat, female): 660 mg/kg
Method: OECD Test Guideline 402
Assessment: The component/mixture is toxic after single contact with skin.

methanol:

Acute oral toxicity : LD50 (Rat): 5 628 mg/kg
Assessment: The component/mixture is toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat, male and female): 128,2 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Other guidelines
Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit): 15 800 mg/kg
Assessment: The component/mixture is toxic after single contact with skin.

formaldehyde:

Acute oral toxicity : LD50 (Rat, male): 800 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is toxic after single ingestion.

LD50 (Rat, male): 460 - 830 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): 0,35 mg/l
Exposure time: 4 h

Test atmosphere: vapour
Assessment: The component/mixture is toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit): 270 mg/kg
Assessment: The component/mixture is toxic after single contact with skin.

Skin corrosion/irritation

Components:

ethanol:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

toluene:

Species : Rabbit
Assessment : Irritating to skin.
Method : Directive 67/548/EEC, Annex V, B.4.
Result : Skin irritation
GLP : yes

phenol:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Causes burns.

methanol:

Species : Rabbit
Assessment : No skin irritation
Method : Other guidelines
Result : No skin irritation

formaldehyde:

Species : Rabbit
Assessment : Causes burns.
Method : OECD Test Guideline 404
Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Components:

ethanol:

Species : Rabbit
Assessment : Mild eye irritant
Method : OECD Test Guideline 405
Result : Mild eye irritant

toluene:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation
GLP	:	yes

phenol:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.

methanol:

Species	:	Rabbit
Result	:	No eye irritation

formaldehyde:

Species	:	Rat
Assessment	:	Risk of serious damage to eyes.
Result	:	Corrosive

Respiratory or skin sensitisation

Components:

Formaldehyde, oligomeric reaction products with phenol:

Exposure routes	:	Skin
Species	:	Humans
Assessment	:	May cause sensitisation by skin contact.
Result	:	May cause sensitisation by skin contact.

toluene:

Test Type	:	Maximisation Test
Exposure routes	:	Skin
Species	:	Guinea pig
Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	Directive 67/548/EEC, Annex V, B.6.
Result	:	Did not cause sensitisation on laboratory animals.

phenol:

Exposure routes	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

methanol:

Exposure routes	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

formaldehyde:

Exposure routes	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitisation by skin contact.
Assessment	:	May cause sensitisation by skin contact.

Germ cell mutagenicity

Components:

ethanol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Concentration: 33.99 mg/ml
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: reverse mutation assay
Test system: Salmonella typhimurium
Concentration: 10 mg/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

toluene:

Genotoxicity in vitro : Test Type: gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: reverse mutation assay
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: Regulation (EC) No. 440/2008, Annex, B.13/14 (Ames test)
Result: negative

Genotoxicity in vivo : Test Type: in vivo assay
Species: Rat
Cell type: Bone marrow
Application Route: Intraperitoneal injection
Dose: 0.025, 0.082, 0.247 mL/kg
Result: negative

phenol:

Germ cell mutagenicity-Assessment : In vitro tests showed mutagenic effects

methanol:

Genotoxicity in vitro	:	Concentration: 15.8 - 63.3 mg/ml Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Concentration: 5 - 5000 ug/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Concentration: ca 40 mg/ml Metabolic activation: negative Result: negative
Genotoxicity in vivo	:	Application Route: Intraperitoneal injection Dose: 1920 - 4480 mg/kg Method: OECD Test Guideline 474 Result: negative

formaldehyde:

Genotoxicity in vitro	:	Result: positive Concentration: 60 ug/plate Metabolic activation: negative Method: OECD Test Guideline 471 Result: positive
Genotoxicity in vivo	:	Cell type: Germ + somatic Result: Positive results were obtained in some in vivo tests.
Germ cell mutagenicity-Assessment	:	Positive result(s) from in vivo non-mammalian somatic cell mutagenicity tests, supported by positive results from in vitro mutagenicity assays.

Carcinogenicity

Components:

ethanol:

Species	:	Rat
NOAEL	:	> 3 000 mg/kg body weight
Method	:	OECD Test Guideline 451

toluene:

Species	:	Rat, male and female
Application Route	:	Inhalation
Exposure time	:	103 weeks
Dose	:	0, 2261, 4522 mg/m³
Frequency of Treatment	:	6.5 hour
NOAEL	:	4 522 mg/m³
Method	:	OECD Test Guideline 453
Result	:	negative
Target Organs	:	Respiratory Tract, Kidney
GLP	:	yes

Species	:	Rat, male and female
Application Route	:	inhalation (vapour)
Exposure time	:	103 weeks
Dose	:	0, 113, 377, 1131 mg/m³
Frequency of Treatment	:	6.5 hour
NOAEL	:	1 131 mg/m³
Method	:	OECD Test Guideline 453
Result	:	negative
GLP	:	yes

phenol:

Species	:	Mouse, male and female
Application Route	:	Oral
Exposure time	:	103 weeks
Dose	:	5000 ppm
Method	:	OECD Test Guideline 451
Result	:	negative

methanol:

Species	:	Rat, male and female
Application Route	:	Inhalation
Exposure time	:	24 month(s)
Dose	:	>= 1300 mg/m³
Frequency of Treatment	:	20 hour
Method	:	OECD Test Guideline 453
Result	:	negative

Species	:	Mouse, male and female
Application Route	:	Inhalation
Exposure time	:	18 month(s)
Dose	:	13 - 1300 mg/m³
Frequency of Treatment	:	19 hour
Method	:	OECD Test Guideline 453
Result	:	negative

formaldehyde:

Species	:	Rat, male
Application Route	:	Inhalation
Exposure time	:	24 month(s)
Dose	:	6 ppm
Frequency of Treatment	:	6 hour
Result	:	positive

Carcinogenicity - Assessment	:	Sufficient evidence of carcinogenicity in inhalation studies with animals

Reproductive toxicity

Components:

ethanol:

Effects on fertility	:	

Species: Rat
General Toxicity - Parent: NOAEL: 5 200 mg/kg body weight

Effects on foetal development : Species: Mouse, male and female
Application Route: Oral
Result: Teratogenic effects

toluene:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: inhalation (vapour)
Dose: 0, 375, 1875, 7500 mg/m3
Frequency of Treatment: 7 days/week
General Toxicity - Parent: NOAEL: 1,875 mg/l
General Toxicity F1: NOAEL: 1,875 mg/l
General Toxicity F2: NOAEC: 1,875 mg/l
Symptoms: Reduced foetal weight
Method: OECD Test Guideline 416
GLP: yes

Effects on foetal development : Species: Rat, female
Application Route: inhalation (vapour)
Duration of Single Treatment: 13 d
General Toxicity Maternal: NOAEL: 2 261 mg/m³
Developmental Toxicity: NOAEC: 2 261 mg/m³
Method: Other guidelines

Test Type: Pre-natal
Species: Rabbit, female
Application Route: inhalation (vapour)
Duration of Single Treatment: 13 d
General Toxicity Maternal: NOAEC: 1 884 mg/m³
Developmental Toxicity: NOAEC: 1 884 mg/m³
Method: OECD Test Guideline 414
GLP: yes

Application Route: inhalation (vapour)
Duration of Single Treatment: 10 d
General Toxicity Maternal: NOAEC: 2 812 mg/m³
Developmental Toxicity: NOAEC: 2 812 mg/m³
Method: Inhalation Developmental Toxicity Screen
GLP: yes

Reproductive toxicity - Assessment : Suspected of damaging fertility or the unborn child., Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

phenol:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Method: OECD Test Guideline 416
Remarks: No significant adverse effects were reported

Species: Mouse, female

Application Route: Oral

Effects on foetal development : Species: Rat, female
Application Route: Oral
General Toxicity Maternal: NOAEL: 60 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

methanol:

Effects on fertility : Species: Rat, male and female
Application Route: Inhalation
Method: OECD Test Guideline 416
Result: negative

Species: Monkey, female
Application Route: Inhalation
Result: negative

Species: Mouse, male
Application Route: Oral
Result: negative

Effects on foetal development : Species: Monkey
Application Route: Inhalation
General Toxicity Maternal: NOAEL: 2 390 mg/m³
Result: No teratogenic effects

STOT - single exposure

Components:

toluene:

Exposure routes : inhalation (vapour)
Target Organs : Central nervous system
Assessment : May cause drowsiness or dizziness.

phenol:

Exposure routes : Inhalation
Target Organs : Narcotic effects
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

methanol:

Target Organs : Bladder, Blood, Central nervous system, Eyes, Kidney, Liver, Nervous system, spleen
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

STOT - repeated exposure

Components:

toluene:

Exposure routes	:	inhalation (vapour)
Target Organs	:	Neurological effects
Assessment	:	May cause damage to organs through prolonged or repeated exposure.

phenol:

Target Organs	:	Central nervous system
Assessment	:	May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

ethanol:

Species	:	Rat, male
NOAEL	:	1,28 g/kg
Application Route	:	Ingestion
Exposure time	:	14 Weeks
Number of exposures	:	7 d
Method	:	Subchronic toxicity

toluene:

Species	:	Rat, male and female
NOAEL	:	1131 mg/m3
Application Route	:	inhalation (vapour)
Test atmosphere	:	vapour
Exposure time	:	103 weeks 6 h
Number of exposures	:	5 days/week
Dose	:	0, 113, 377 or 1131 mg/m3
Method	:	OECD Test Guideline 453

Species	:	Mouse, male and female
NOAEL	:	625 mg/kg
Application Route	:	Ingestion
Exposure time	:	13 Weeks
Number of exposures	:	5 days/week
Method	:	Subchronic toxicity

Species	:	Rat, male and female
NOAEL	:	625 mg/kg
LOAEL	:	1 250 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Number of exposures	:	5 days/week
Dose	:	312,625,1250,2500,5000 mg/kg
Method	:	Regulation (EC) No. 440/2008, Annex, B.26

Species	:	Mouse, male and female
NOAEL	:	625 mg/kg

LOAEL	:	1 250 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Number of exposures	:	5 days/week
Dose	:	312,625,1250,2500,5000 mg/kg
Method	:	Regulation (EC) No. 440/2008, Annex, B.26

phenol:

Species	:	Monkey, male
NOEC	:	1,8 mg/kg, > 19,6 mg/m3
Application Route	:	Ingestion
Test atmosphere	:	dust/mist
Exposure time	:	672 h
Number of exposures	:	8 h
Method	:	Subacute toxicity

Species	:	Rabbit
LOEL	:	260 mg/kg
Application Route	:	Skin contact
Exposure time	:	432 h
Method	:	Subacute toxicity

Species	:	Rat, male and female
NOAEL	:	450 mg/kg
Application Route	:	Ingestion
Exposure time	:	103 Weeks
Number of exposures	:	7 d
Method	:	Chronic toxicity

methanol:

Species	:	Monkey
NOEC	:	13 mg/m3
Test atmosphere	:	vapour
Exposure time	:	5 040 h
Number of exposures	:	21 h

Species	:	Monkey, male and female
NOEC	:	6660 mg/m3
Application Route	:	Ingestion
Test atmosphere	:	vapour
Exposure time	:	72 h
Number of exposures	:	6 h
Method	:	OECD Test Guideline 412

Species	:	Monkey
NOEC	:	1300 mg/m3
Test atmosphere	:	vapour
Exposure time	:	1 440 h
Number of exposures	:	21 h

Species	:	Monkey
LOEC	:	3990 mg/m3
Test atmosphere	:	vapour
Exposure time	:	480 h

Number of exposures : 21 h

formaldehyde:

Species : Mouse, male and female
LOAEL : 6 ppm
Test atmosphere : gas
Exposure time : 2 yr
Number of exposures : 6 h
Method : OECD Test Guideline 453

Species : Rat, male and female
NOAEL : 15 - 21 mg/kg
Application Route : Ingestion
Exposure time : 105 Weeks
Number of exposures : 7 d
Method : Chronic toxicity

Species : Rat, male and female
NOAEL : 82 mg/kg/d
Application Route : Ingestion
Exposure time : 105 Weeks
Number of exposures : 7 d
Method : Chronic toxicity

Aspiration toxicity

Components:

toluene:

May be fatal if swallowed and enters airways.

methanol:

May be harmful if swallowed and enters airways.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

Product:

Remarks : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

Components:

methanol:

Remarks : Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

ethanol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 13 000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 12 340 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201

NOEC (Lemna gibba (gibbous duckweed)): 280 mg/l
Method: OECD Test Guideline 201

Toxicity to microorganisms : (activated sludge): 440 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 9,6 mg/l
Exposure time: 10 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Test substance: Fresh water

NOEC: 9,6 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (Water flea)
Test Type: semi-static test
Test substance: Fresh water

toluene:

Toxicity to fish : LC50 (Oncorhynchus kisutch (coho salmon)): 5,5 mg/l
End point: mortality

Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: yes
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (Water flea)): 3,78 mg/l
Exposure time: 48 h
Test substance: Fresh water
Method: Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids

Toxicity to algae/aquatic plants : EC50 (Chlorella vulgaris (Fresh water algae)): 207 mg/l
Exposure time: 3 h
Test Type: static test
Test substance: Fresh water

EC50 (Chlamydomonas sp.): 134 mg/l
Exposure time: 3 h
Test Type: static test
Test substance: Fresh water

Toxicity to microorganisms : EC50 (Bacteria): 84 mg/l
Exposure time: 24 h
Test Type: static test
Test substance: Fresh water

Toxicity to fish (Chronic toxicity) : NOEC: 1,39 mg/l
Exposure time: 40 d
Species: Oncorhynchus kisutch (coho salmon)
Test Type: flow-through test
Analytical monitoring: yes
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,74 mg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (Water flea)
Test substance: Fresh water
Method: Daphnid Chronic Toxicity Test

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

phenol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 8,9 mg/l
Exposure time: 96 h
Test Type: flow-through test
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3,1 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids

Toxicity to fish (Chronic toxicity)	:	NOEC: 0,077 mg/l Exposure time: 60 d Species: Other Test Type: semi-static test Test substance: Fresh water
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	EC10: 4,6 mg/l Exposure time: 16 d Species: Daphnia magna (Water flea) Test Type: semi-static test Test substance: Fresh water

methanol:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 15 400 mg/l Exposure time: 96 h Test Type: flow-through test Test substance: Fresh water
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 10 000 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: DIN 38412
Toxicity to algae/aquatic plants	:	ErC50 (Selenastrum capricornutum (green algae)): ca. 22 000 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201
Toxicity to microorganisms	:	IC50 (activated sludge): > 1 000 mg/l Exposure time: 3 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 209

formaldehyde:

Toxicity to fish	:	LC50 (Other): 6,7 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia pulex (Water flea)): 5,8 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EgC50 (Other): 3,48 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water

Method: OECD Test Guideline 201

EC50 (Other): 3,48 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Bacteria): 34,1 mg/l
Exposure time: 120 h
Test Type: static test
Test substance: Fresh water

EC50 (activated sludge): 20,4 mg/l
Exposure time: 3 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 209

12.2 Persistence and degradability

Components:

ethanol:

Biodegradability : Biodegradation: 97 %
Method: OECD Test Guideline 301B

Biochemical Oxygen Demand (BOD) : 1.67 g/g
Incubation time: 5 d

Chemical Oxygen Demand (COD) : 1990 mgO2/g

toluene:

Biodegradability : Test Type: aerobic
Inoculum: Sewage (STP effluent)
Result: Readily biodegradable.

phenol:

Biodegradability : Inoculum: activated sludge
Concentration: 30 mg/l
Result: Readily biodegradable.
Biodegradation: 62 %
Exposure time: 4,16667 d
Method: OECD Test Guideline 301C

methanol:

Biodegradability : Inoculum: Marine water
Result: Readily biodegradable.
Biodegradation: 69 - 97 %
Exposure time: 5 - 20 d

Photodegradation : Test Type: Air

Rate constant: 0.0093
Degradation (direct photolysis): 50 %

formaldehyde:

Biodegradability : Inoculum: activated sludge
Concentration: 1 360 mg/l
Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 4 d

Inoculum: activated sludge
Concentration: 100 mg/l
Result: Readily biodegradable.
Biodegradation: 91 %
Exposure time: 14 d
Method: OECD Test Guideline 301C

Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 99,5 %
Exposure time: 160 d
Method: Simulation Test - Aerobic Sewage Treatment. A: Activated Sludge Units

Biochemical Oxygen Demand (BOD) : 0,33 - 1,07 mg/l
Incubation time: 5 d

Chemical Oxygen Demand (COD) : 1.07 mgO2/g

12.3 Bioaccumulative potential

Components:

ethanol:

Bioaccumulation : Bioconcentration factor (BCF): 0,66 - 3,2

Partition coefficient: n-octanol/water : log Pow: -0,31

toluene:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Exposure time: 3 d
Concentration: 50 µg/l
Bioconcentration factor (BCF): 90
Test substance: Fresh water
Method: flow-through test

Partition coefficient: n-octanol/water : log Pow: 2,73 (20 °C)
pH: 7

phenol:

Partition coefficient: n- : log Pow: 1,47 (30 °C)

octanol/water		pH: 3,8

methanol:

Bioaccumulation	:	Species: Leuciscus idus (Golden orfe) Exposure time: 3 d Bioconcentration factor (BCF): < 10 Test substance: Fresh water
Partition coefficient: n-octanol/water	:	log Pow: -0,77

formaldehyde:

Partition coefficient: n-octanol/water	:	log Pow: 0,35 (25 °C)

12.4 Mobility in soil

Components:

toluene:

Distribution among environmental compartments	:	Koc: 205 Method: Calculation method

formaldehyde:

Distribution among environmental compartments	:	Koc: 15,9

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

Product:

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

Components:

methanol:

Additional ecological information	:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of contents and container in accordance with all local, regional, national and international regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number or ID number

ADR	:	UN 1866
RID	:	UN 1866
IMDG	:	UN 1866
IATA	:	UN 1866

14.2 UN proper shipping name

ADR	:	RESIN SOLUTION
RID	:	RESIN SOLUTION
IMDG	:	RESIN SOLUTION
IATA	:	Resin solution

14.3 Transport hazard class(es)

ADR	:	3
RID	:	3
IMDG	:	3
IATA	:	3

14.4 Packing group

ADR

Packing group	:	II
Classification Code	:	F1
Hazard Identification Number	:	33
Labels	:	3

Tunnel restriction code : (D/E)

RID

Packing group	:	II
Classification Code	:	F1
Hazard Identification Number	:	33
Labels	:	3

IMDG

Packing group	:	II
Labels	:	3
EmS Code	:	F-E, S-E

IATA (Cargo)

Packing instruction (cargo aircraft)	:	364
Packing instruction (LQ)	:	Y341
Packing group	:	II
Labels	:	Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft)	:	353
Packing instruction (LQ)	:	Y341
Packing group	:	II
Labels	:	Flammable Liquids

14.5 Environmental hazards

ADR
Environmentally hazardous : no

RID
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c	FLAMMABLE LIQUIDS

Other regulations:

AFS 2011:19 - Chemical Hazards in the Working Environment (amended by AFS 2019:9), §§37a-g.

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Young people under the age of 18 are not allowed to use or be exposed to the product professionally. Young people who will be turning 16 during the calendar year are, however, except from this rule if the product is a necessary part of their education.

The components of this product are reported in the following inventories:

DSL	:	This product contains one or several components that are not on the Canadian DSL nor NDSL.
AIIC	:	On the inventory, or in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.

Inventories

AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States of America (USA))

15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

SECTION 16: Other information

Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H301	:	Toxic if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H311	:	Toxic in contact with skin.
H314	:	Causes severe skin burns and eye damage.
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.
H336	:	May cause drowsiness or dizziness.
H341	:	Suspected of causing genetic defects.
H350	:	May cause cancer.
H361d	:	Suspected of damaging the unborn child.
H370	:	Causes damage to organs.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Asp. Tox.	:	Aspiration hazard
Carc.	:	Carcinogenicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Muta.	:	Germ cell mutagenicity
Repr.	:	Reproductive toxicity
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure
STOT SE	:	Specific target organ toxicity - single exposure
2004/37/EC	:	Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
2006/15/EC	:	Europe. Indicative occupational exposure limit values
2009/161/EU	:	Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
SE AFS	:	Sweden. Occupational Exposure Limit Values
2004/37/EC / STEL	:	Short term exposure limit
2004/37/EC / TWA	:	Long term exposure limit
2006/15/EC / TWA	:	Limit Value - eight hours
2006/15/EC / STEL	:	Short term exposure limit
2009/161/EU / TWA	:	Limit Value - eight hours

2009/161/EU / STEL	:	Short term exposure limit
SE AFS / NGV	:	Time Weighted Average
SE AFS / KGV	:	Short Term Exposure Limit

Further information

Classification of the mixture:		**Classification procedure:**
Flam. Liq. 2	H225	Based on product data or assessment
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Muta. 2	H341	Calculation method
Carc. 1B	H350	Calculation method
Repr. 2	H361d	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE.