

Safety data sheet

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Chemetall (now part of BASF Group) Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 16.06.2018

Version: 1.0

Product: **ACESOLVE PSN**

(ID no. 30707659/SDU_GEN_GB/EN)

Date of print 19.11.2019

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

1.1. Product identifier

ACESOLVE PSN

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

Recommended use: solvent(s)

Not recommended use: None known

1.3. Details of the supplier of the safety data sheet

Company:

Chemetall GmbH
Trakehner Straße, 3
60487, Frankfurt am Main
Germany
+49(0)69 7165-0
sds.global-chemetall@basf.com

Contact address:

Chemetall Ltd.
Denbigh Road 65
Bletchley Milton Keynes MK1 1PB
Great Britain

Telephone: +44 1908 649333

E-mail address: sds.global-chemetall@basf.com

1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage, Category 1

H318: Causes serious eye damage.

Reproductive toxicity, Category 1B

H360Df: May damage the unborn child. Suspected of damaging fertility.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.
H360Df May damage the unborn child. Suspected of damaging fertility.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe vapours, aerosols.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

1-Ethylpyrrolidin-2-one

Additional Labelling

Restricted to professional users.

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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. The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture of organic solvents.

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (% w/w)
1-Ethylpyrrolidin-2-one	2687-91-4 220-250-6 01-2119472138-36	Eye Dam. 1; H318 Repr. 1B; H360Df	>= 25 - < 50
3-Mercaptopropane-1,2-diol	96-27-5 202-495-0	Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335	>= 1 - < 2.5

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : First aider needs to protect himself.
Move out of dangerous area.
Take off contaminated clothing and shoes immediately.
- If inhaled : Move to fresh air.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.
- If swallowed : Rinse mouth with water.
Do NOT induce vomiting.
Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

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Risks : Causes serious eye damage.
May damage the unborn child. Suspected of damaging fertility.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : May form toxic gases on heating or in case of fire.
Carbon monoxide
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
Inform the relevant authorities if it enters sewers, aquatic environment or soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local /

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national regulations (see section 13).

6.4 Reference to other sections

For further information see Section 8 of the safety data sheet.

For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Ensure that eye flushing systems and safety showers are located close to the working place. To avoid risks to man and the environment, comply with the instructions for use.
- Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Normal measures for preventive fire protection. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.
- Hygiene measures : Take off contaminated clothing and shoes immediately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and immediately after handling the product. Avoid contact with skin and eyes. Do not breathe vapour. Do not breathe spray.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. To maintain product quality, do not store in heat or direct sunlight.
- Advice on common storage : Incompatible with oxidizing agents.
- Recommended storage temperature : 0 - 40 °C

7.3 Specific end use(s)

- Specific use(s) : Solvent

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

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

Substance name	End Use	Exposure routes	Potential health effects	Value
1-Ethylpyrrolidin-2-one	Workers	Inhalation	Long-term systemic effects	16.75 mg/m ³

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	Workers	Inhalation	Long-term local effects	10.05 mg/m ³
	Workers	Inhalation	Acute local effects	20.01 mg/m ³
	Workers	Skin contact	Long-term systemic effects	4 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
1-Ethylpyrrolidin-2-one	Fresh water	0.25 mg/l
	Marine water	0.025 mg/l
	Intermittent use/release	1 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	1.91 mg/kg dry weight (d.w.)
	Marine sediment	0.191 mg/kg dry weight (d.w.)
	Soil	0.235 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye protection : Eye protection (EN 166)
Tightly fitting safety goggles

Hand protection

Remarks : Nitrile rubber butyl-rubber Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended Filter type:
Type A

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : amine-like

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Odour Threshold	:	No data available
pH	:	ca. 7 - 8 (20 °C) (undiluted)
Solidification temperature/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	ca. 90 °C Method: ISO 2719 Other information: Sustains combustion
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	9.5 %(V)
Lower explosion limit	:	1.3 %(V)
Vapour pressure	:	< 3 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.05 g/cm ³ (20 °C) Method: DIN 51757
Solubility(ies) Water solubility	:	partly soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	ca. 3 mPa*s (20 °C) Method: DIN 54453
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Explosive properties	:	No data available

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Oxidizing properties : No data available

9.2 Other information

Other physico-chemical properties: This information is not available/not determined.

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 : Keep away from open flames, hot surfaces and sources of ignition.
Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

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Acute toxicity

Components:

1-Ethylpyrrolidin-2-one:

Acute oral toxicity : LD50 (Rat): ca. 3,200 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 5.1 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

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

3-Mercaptopropane-1,2-diol:

Acute oral toxicity : LD50 (Rat): 670 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 699 mg/kg

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:

Remarks: Causes serious eye damage.

Respiratory or skin sensitisation

Product:

Remarks: No data available

Germ cell mutagenicity

Product:

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

Carcinogenicity

Product:

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

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : May damage the unborn child. Suspected of damaging fertility.

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STOT - single exposure

Product:

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

STOT - repeated exposure

Product:

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

Aspiration toxicity

Product:

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

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology studies for the product are not available.

Components:

1-Ethylpyrrolidin-2-one:

Toxicity to fish : LC50 (Brachydanio rerio (Zebra danio)): > 464 - < 999 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 104 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 12.5 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 101 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 1,000 mg/l
Exposure time: 16 h

3-Mercaptopropane-1,2-diol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 10 - 100 mg/l
Exposure time: 96 h

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12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Distribution among environmental compartments : Remarks: No data available

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 Other adverse effects

Product:

Adsorbed organic bound halogens (AOX) : Remarks: Product does not contain any organic halogens.

Additional ecological information : water endangering
Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
Even leakage of small amounts in the subsoil can contaminate drinking water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : In accordance with local and national regulations.

Contaminated packaging : Dispose of as unused product.

Waste Code : : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Refer to protective measures listed in sections 7 and 8.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Neither banned nor restricted

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Neither banned nor restricted

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Neither banned nor restricted

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).

REACH - List of substances subject to authorisation (Annex XIV) : Neither banned nor restricted

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Neither banned nor restricted

Regulation (EC) No 850/2004 on persistent organic pollutants : Neither banned nor restricted

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws. Regional or national implementations of GHS may not

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implement all hazard classes and categories.

15.2 Chemical safety assessment

For a mixture it is not mandatory to include an exposure scenario in the material safety data sheet. The necessary safety - related information is stated in the first 16 sections.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H311	:	Toxic in contact with skin.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
H360Df	:	May damage the unborn child. Suspected of damaging fertility.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Repr.	:	Reproductive toxicity
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition

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Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information :

This data sheet contains changes from the previous version in section(s): 2

This data sheet contains changes from the previous version in section(s): 3

GB / EN

If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: sds.global-chemetall@basf.com

The content of this Safety Data Sheet (SDS) is based on an existing document from an acquired company with adaptations to Section I. The data is currently under validation.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.