1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

ACRIFIX® 1S 0107

Solvent mixture

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

Recommended use(s): solvent adhesive for PLEXIGLAS®

Non-recommended use(s): None known.

1.3. Details of the supplier of the safety data sheet

Evonik Industries AG
Plant Roehm Darmstadt
Chemicals Management
Kirschenallee
64293 Darmstadt
Germany
+49 6151 18 01

E-Mail: cmda@evonik.com

Information provided by :
+49 6151 18 40 76

1.4. Emergency telephone number

+49 6151 18 43 42

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

This mixture is classified as hazardous according to CLP/GHS

Regulation (EC) No 1272/2008

Acute toxicity (oral)	Hazard category 4	H302
Carcinogenicity	Hazard category 2	H351

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: **Warning**

GHS pictogram (e):

hazard statement (e):

Harmful if swallowed. (H302)
Suspected of causing cancer. (H351)

Safety notice (general)	Use personal protective equipment as required. (P281)
Precautionary Statement (Prevention)	Wash hands thoroughly with soap and water after handling. (P264)
Precautionary Statement (Response)	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. (P301 + P312) IF exposed or concerned: Get medical advice/attention. (P308 + P313)
Precautionary Statement (Storage)	Store locked up. (P405)
Precautionary Statement (Disposal)	Dispose of contents/container in accordance with local regulation. (P501)

Hazardous component(s) for labelling	contains	dichloromethane nitromethane

Directive 67/548/EC or Directive 1999/45/EC

Labelling in accordance with directive 1999/45/EC	requires labelling	
Hazardous component(s) for labelling	contains	dichloromethane nitromethane
hazard symbol(s)	Xn	Harmful
R-phrase(s)	22 40	Harmful if swallowed. Limited evidence of a carcinogenic effect.
S-phrase(s)	23 24/25 36/37 41	Do not breathe vapour/spray. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves. In case of fire and/or explosion do not breathe fumes.

2.3. Other hazards

Substance may be electrostatically charged

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

3.2. Mixtures

Regulation (EC) No 1272/2008

'Component	EINECS-No. REACH-No. CAS-No.	Content	Hazard class / Hazard category / Hazard statement
dichloromethane	200-838-9 - 75-09-2	30.0 - 60.0 %	Carc. 2; H351
nitromethane	200-876-6 - 75-52-5	30.0 - 60.0 %	Flam. Liq. 3; H226 Acute Tox. 4; H302
2-phenoxyethanol	204-589-7 - 122-99-6	3.0 - 7.0 %	Acute Tox. 4 (oral); H302 Eye Irrit. 2; H319
ethanol	200-578-6 - 64-17-5	1.0 - 5.0 %	Flam. Liq. 2; H225

Hazardous Ingredients as per Directive 67/548/EC or Directive 1999/45/EC

, Component	CAS Number	Hazard symbol(s) / R-phrase(s)		Content
dichloromethane	75-09-2	Xn	40	30.0 - 60.0 %
nitromethane	75-52-5	Xn	5-10-22	30.0 - 60.0 %
2-phenoxyethanol	122-99-6	Xn	22-36	3.0 - 7.0 %
ethanol	64-17-5	F	11	1.0 - 5.0 %

4. FIRST AID MEASURES

4.1. Description of first aid measures

General advice	Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.
Inhalation	Move subject to fresh air and keep him calm. See a physician.
Skin contact	Wash off immediately with soap and water. If skin irritation occurs consult a physician.
Eye contact	Keeping the eyelids apart flush thoroughly with water immediately. If irritation persists, contact a physician.
Ingestion	Do not induce vomiting. Consult a physician immediately.

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

Excessive or prolonged exposure can cause the following:, Headache, confusion, unconsciousness

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

no

risk of pulmonary oedema

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	foam, dry chemical, carbon dioxide
Extinguishing media which must not be used for safety reasons	water

5.2. Special hazards arising from the substance or mixture

In fires, hazardous combustion gases are formed: hydrogen chloride (HCl) Products or compounds possibly released in case of fire: phosgene

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure sufficient ventilation. Use personal protective clothing. Keep away sources of ignition. Use breathing apparatus if exposed to vapours/dust/mist/aerosol. Remove persons to safety

6.2. Environmental precautions

Prevent product from getting into drains/surface water/groundwater.

6.3. Methods and material for containment and cleaning up

Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment! Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.

6.4. Reference to other sections

For personal protection see section 8.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice	Keep container tightly closed. Ensure there is good room ventilation.
Advice on protection against fire and explosion	Keep away from sources of ignition --- No smoking. Take precautionary measures against static discharges. In the event of fire, cool the endangered containers with water. When heated above the flash point and/or during spraying (atomizing), ignitible mixtures may form in air. Use only explosion-proof equipment.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Keep only in the original container at a temperature not exceeding 30 °C. Protect from the action of light. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability.

7.3. Specific end use(s)

no

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components or products of decomposition according to point 10, with limit values related to the place of work which require monitoring

dichloromethane 75-09-2		
WEL (long-term) 2009 Sk - Can be absorbed through skin.	350 mg/m3	100 ppm
WEL (short-term) 2009 Sk - Can be absorbed through skin.	1,060 mg/m3	300 ppm
nitromethane 75-52-5		
WEL (long-term) 2009	254 mg/m3	100 ppm
WEL (short-term) 2009	381 mg/m3	150 ppm
ethanol 64-17-5		
WEL (long-term) 2009	1,920 mg/m3	1,000 ppm
hydrogen chloride 7647-01-0		
WEL (long-term) 2009	2 mg/m3	1 ppm
WEL (short-term) 2009	8 mg/m3	5 ppm
Indicative occupational exposure limit value 2006/15/EC 2006	8 mg/m3	5 ppm
Indicative occupational exposure limit value 2006/15/EC (15 minutes) 2006	15 mg/m3	10 ppm
phosgene 75-44-5		
WEL (long-term) 2009	0.08 mg/m3	0.02 ppm
WEL (short-term) 2009	0.25 mg/m3	0.06 ppm
Indicative occupational exposure limit value 2006/15/EC 2006	0.08 mg/m3	0.02 ppm
Indicative occupational exposure limit value 2006/15/EC (15 minutes) 2006	0.4 mg/m3	0.1 ppm

8.2. Exposure controls

For monitoring procedures refer for instance to "Empfohlene Analysenverfahren für Arbeitsplatzmessungen", Schriftenreihe der Bundesanstalt für Arbeitsschutz and "NIOSH Manual of Analytical Methods", National Institute for Occupational Safety and Health

Protective measures	Do not breathe vapours. Avoid contact with eyes and skin. Avoid exposure - Obtain special instructions before use.
Hygiene measures	Take off all contaminated clothing immediately. Store work clothing separately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.
Respiratory protection	Breathing apparatus in case of high concentrations, short term: filter appliance, filter AX
Hand protection	Viton® gloves, Break through time 120 min (EN 374) In practice, due to variable exposure conditions, this information can only be an aid to orientation for the selection of a suitable chemical protection glove. In particular, this information does not substitute suitability tests by the end user.
General information	Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.

Eye protection	tightly fitting goggles
Skin and body protection	On handling of larger quantities: face mask, chemical-resistant boots and apron

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Form	liquid
Colour	colourless to slightly yellow
Odour	sweetish, chloroform-like
Freezing Temperature	not available
start of boiling	ca.40 °C (1,013 hPa)
Flash point	no flash point according to DIN 51755
Ignition temperature	ca. 605 °C (DIN 51794) (dichloromethane)
	ca. 418 °C (DIN 51794) (nitromethane)
Lower explosion limit	13 %(V) (dichloromethane)
	7.1 %(V) (nitromethane)
Upper explosion limit	22 %(V) (dichloromethane)
	63 %(V) (nitromethane)
Vapour pressure	475 hPa (20 °C) (dichloromethane)
	35 hPa (20 °C) (nitromethane)
Density	1.22 g/cm3 (20 °C)
Relative vapour density (related to air)	> 1 (20 °C)
Solubility in water	13.7 g/l (20 °C) (dichloromethane)
Fat solubility	not available
Solubility (qualitative)	miscible with most organic solvents
pH	not applicable
n-Octanol/water partition coefficient	not available
Viscosity (dynamic)	(20 °C)low-viscosity

9.2. Other information

The slightly volatile, flame retardant component dichloromethane evaporates to leave an flammable substance.

10. STABILITY AND REACTIVITY

10.1. Reactivity

see section 10.2.

10.2. Chemical Stability

The following applies to the component nitromethane:Shock and heat sensitive.Thermally unstable.

10.3. Possibility of hazardous reactions

Product reacts violently to explosively with alkali metals, alkaline earth metals, various metal powders and sodium amide.
Reactions with strong acids.
Reactions with strong oxidizing agents.
Forms shock sensitive compounds with amines.

10.4. Conditions to avoid

Do not heat above 200 °C.

10.5. Incompatible materials

Product reacts violently to explosively with alkali metals, alkaline earth metals, various metal powders and sodium amide.
Reactions with strong acids.
Reactions with strong oxidizing agents.
Forms shock sensitive compounds with amines.

10.6. Hazardous decomposition products

In flames and on hot surfaces, poisonous and pungent smelling decomposition products (e.g. hydrogen chloride and phosgene) may form.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

toxicokinetics, metabolism and distribution	no specific test data available	
Acute Oral Toxicity	LD50 Rat, Related to substance: dichloromethane LD50 Rat, Related to substance: nitromethane LD50 Rat, Related to substance: phenoxyethanol	1,600 mg/kg 1,210 mg/kg 1,250 mg/kg
Acute Inhalational Toxicity	LC50 Rat, Related to substance: dichloromethane LCLo Rat, Related to substance: nitromethane	52 mg/l 12.7 mg/l
Acute Dermal Toxicity	LD50 rabbit, Related to substance: nitromethane, Low toxicity in contact with skin	> 2,000 mg/kg
Caustic burning / irritation of skin	Properties of components in summary.Related to substance: product The product has a degreasing effect on skin.	irritating
Serious eye damage/eye irritation	Properties of components in summary.Related to substance: product	irritating
Respiratory/skin sensitization	no specific test data available	
Aspiration hazard	not applicable	
Mutagenicity assessment	no specific test data available	
Reprotoxicity / teratogenicity	no specific test data available	
Human health hazard assessment	no specific test data available	
Toxicity on Repeated Administration	mouse, inhalation, 90 d Related to substance: nitromethane	**NOAEL** 94 ppm
Observations on humans	Possibility of liver damage. High solvent concentrations will cause irritations of the eyes and respiratory system and may cause headache, dizziness and disorder of the central nervous system. Inhalation of high concentrations of solvent vapors may have narcotic effects. Related to substance: dichloromethane	
General information	Carefully avoid contact with skin and eyes as well as inhalation of product vapours.	

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatoxicity, fish	LC50 Pimephales promelas, flow through, 96 h Related to substance: dichloromethane	193 mg/l
	LC50 Poecilia reticulata, 14 d Related to substance: dichloromethane	294 mg/l
Aquatoxicity, invertebrates	EC50 Daphnia magna Related to substance: dichloromethane	> 200 mg/l
Aquatoxicity, algae / aquatic plants	EC0 Scenedesmus quadricauda Related to substance: dichloromethane	125 mg/l
	IC50 selenastrum capricornutum, growth inhibition test, 72 h Related to substance: dichloromethane	> 662 mg/l
Toxicity in microorganisms	NOEC Pseudomonas putida Related to substance: dichloromethane	500 mg/l

12.2. Persistence and degradability

Biodegradability	not readily degradable, MITI test, 28 d Related to substance: dichloromethane	5 - 26 %

12.3. Bioaccumulative potential

Bioaccumulation: no specific test data available

12.4. Mobility in soil

Mobility: no specific test data available

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment: no specific test data available

12.6. Other adverse effects

General Information: Prevent substance from entering soil, natural bodies of water and sewer systems.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product	Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.
Uncleaned packaging	Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging which cannot be decontaminated should be disposed of like the material. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.
Code of waste EWC	08 04 09 wastes from the manufacture, formulation, supply and use (MFSU) of adhesives and sealants (including waterproofing products) - waste adhesives and sealants containing organic solvents or other dangerous substances Always check the given waste codes according to the actual conditions of manufacturing, formulation or use in your facilities.

14. TRANSPORT INFORMATION

14.1. UN number

see section 14.2.

14.2. UN proper shipping name

Land transport ADR/GGVSEB
UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (contains 30,0-60,0 % dichloromethane, mixture), 6.1, III, (E)
Hazard no. 60

Land transport RID/GGVSEB
UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (contains 30,0-60,0 % dichloromethane, mixture), 6.1, III
Hazard no. 60

Inland waterway transport ADN/GGVSEB (Germany)

UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (contains 30,0-60,0 % dichloromethane, mixture), 6.1, III

Shipment by sea IMDG/GGVSee

UN number	2810
Class	6.1
EmS	F-A, S-A
Marine pollutant	No
Packaging group	III
Proper Shipping Name	TOXIC LIQUID, ORGANIC, N.O.S. (contains 30,0-60,0 % dichloromethane, mixture)
Hazardous constituent	30,0-60,0 % dichloromethane, mixture

Air transport ICAO/IATA

UN number	2810
Class	6.1
Packaging group	III
Proper Shipping Name	TOXIC LIQUID, ORGANIC, N.O.S. (contains 30,0-60,0 % dichloromethane, mixture)

14.3. Transport hazard class(es)

see section 14.2.

14.4. Packing group

see section 14.2.

14.5. Environmental hazards

if not mentioned in Point 14.2 then it does not apply

14.6. Special precautions for user

see section 14.2.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

for transportapproval see regulatory information

15. REGULATORY INFORMATION

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

National legislation

Occupational restrictions	Note for juveniles. Note for pregnant woman and nursing mothers (EC Directive 92/85/EEC).

Chemical safety assessment	No chemical safety assessment was carried out for this product.

Status of Registration

REACH (EU)	preregistered, registered or exempted
TSCA (USA)	listed or exempted
DSL (CDN)	listed or exempted
AICS (AUS)	listed or exempted

16. OTHER INFORMATION

Other information	none
Relevant H phrases from chapter 3	2-phenoxyethanol
	H302 Harmful if swallowed.
	H319 Causes serious eye irritation.
	ethanol
	H225 Highly flammable liquid and vapour.
R-phrases of relevance from chapter 3	5 Heating may cause an explosion.
	10 Flammable.
	11 Highly flammable.
	22 Harmful if swallowed.
	36 Irritating to eyes.
	40 Limited evidence of a carcinogenic effect.
References	relevant manuals and publications
	own examinations
	own toxicological and ecotoxicological studies
	toxicological and ecotoxicological studies of other manufacturers
	SIAR
	OECD-SIDS
	RTK public files

Places marked by || have been amended from the last version.

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