

Safety Data Sheet

MAPEI ACF-L1

Safety Data Sheet dated 8/5/2015, version 2

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

1.1. Product identifier

Trade name: MAPEI ACF-L1

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

Recommended use:

Bitumen admixture

Uses advised against:

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1.3. Details of the supplier of the safety data sheet

Supplier:

MAPEI S.p.A. - Via Cafiero, 22 - 20158 Milano

Tel: +39-02-376731

Fax: +39-02-37673.214

Competent person responsible for the safety data sheet:

sicurezza@mapei.it

1.4. Emergency telephone number

MAPEI S.p.A. - Tel. +(39)02376731 - (office hours)

Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

- ⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.
- ⚠ Warning, Skin Sens. 1, May cause an allergic skin reaction.
- ☠ Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.
- 🐟 Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Danger

Hazard Statements:

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H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

Special Provisions:

None

Contents:

alkenes, C11-C12, hydroformylation products, low boiling
Reaction product TOFA/TEPA
3,6,9-triazaundecamethylenediamine tetraethylenepentamine

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and corresponding classification:

>= 20% - < 25% alkenes, C11-C12, hydroformylation products, low boiling

REACH No.: 01-2119561658-26-XXXX, EC: 932-235-8

- ⚠ 3.3/2 Eye Irrit. 2 H319
- ⚠ 4.1/C1 Aquatic Chronic 1 H410
- ⚠ 3.10/1 Asp. Tox. 1 H304
- ⚠ 4.1/A1 Aquatic Acute 1 H400

>= 10% - < 20% Reaction product TOFA/TEPA

CAS: 68953-36-6, EC: 273-201-6

- ⚠ 3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317
- 4.1/C3 Aquatic Chronic 3 H412

>= 0.49% - < 1% 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine

Index number: 612-060-00-0, CAS: 112-57-2, EC: 203-986-2

- ⚠ 3.2/1B Skin Corr. 1B H314
- ⚠ 3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317
- ⚠ 4.1/C2 Aquatic Chronic 2 H411
- ⚠ 3.1/4/Oral Acute Tox. 4 H302
- ⚠ 3.1/4/Dermal Acute Tox. 4 H312

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SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

A suspension of activated charcoal in water, or petroleum jelly may be administered.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

If brought into contact with the eyes, the product causes considerable irritation which can last for over 24 hours.

If brought into contact with the skin, the product may cause sensitisation of the skin.

The product is harmful: may cause lung damage if swallowed.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

None in particular.

Water.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

The original ingredients or unidentified toxic and/or irritant compounds may be present in the combustion fumes.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

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- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Limit leakages with earth or sand.
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
 - Rapidly recover the product, wearing protective clothing.
 - Suitable material for taking up: absorbing material, organic, sand
 - Wash with plenty of water.
 - Retain contaminated washing water and dispose it.
- 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhalation of vapours and mists.
 - Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers. (see point 10.5)
 - Contaminated clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - See also section 8 for recommended protective equipment.
 - Fine dust may form explosive mixture with air. Keep away from open flames, heat and sparks.
 - Do not remove shrink film in hazardous locations (because of risk of static charging/discharge)
- 7.2. Conditions for safe storage, including any incompatibilities
 - Always keep the containers tightly closed.
 - Keep away from food, drink and feed.
 - Incompatible materials:
 - None in particular.
 - Instructions as regards storage premises:
 - Adequately ventilated premises.
- 7.3. Specific end use(s)
 - None in particular

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - No occupational exposure limit available
- DNEL Exposure Limit Values
 - 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2
 - Consumer: 10 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
 - Worker Professional: 0.74 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 - Consumer: 0.32 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
 - Consumer: 0.53 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
 - Worker Professional: 0.00129 mg/l - Exposure: Human Inhalation - Frequency: Long

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Term, systemic effects
 Consumer: 0.00038 mg/l - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values
 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2
 Target: Fresh Water - Value: 0.00068 mg/l
 Target: Marine water - Value: 0.00068 mg/l
 Target: Freshwater sediments - Value: 3.34 mg/kg
 Target: Marine water sediments - Value: 0.343 mg/kg
 Target: Soil (agricultural) - Value: 0.683 mg/kg

8.2. Exposure controls
 Eye protection:
 Safety goggles.
 Use close fitting safety goggles, don't use eye lens.

Protection for skin:
 Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:
 Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:
 Not needed for normal use.
 In case of insufficient ventilation use mask with B type filters (EN 14387).

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Thermal Hazards:
 None

Environmental exposure controls:
 None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	liquid
Colour:	pagliarino
Odour:	typical
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	>90 °C
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	0,86±0,02 g/cm ³ (23°C)
Vapour density (air=1):	N.A.
Solubility in water:	insoluble
Solubility in oil:	soluble
Viscosity:	<50 mPa.s (23°C)
Auto-ignition temperature:	N.A.
Explosion limits(by volume):	N.A.

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Decomposition temperature:	N.A.	
Partition coefficient (n-octanol/water):	N.A.	
Explosive properties:	N.A.	
Oxidizing properties:	N.A.	
9.2. Other information		
Miscibility:	N.A.	
Fat Solubility:	N.A.	
Conductivity:	N.A.	
Substance Groups relevant properties	N.A.	

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
 - None
- 10.4. Conditions to avoid
 - Stable under normal conditions.
- 10.5. Incompatible materials
 - None in particular.
- 10.6. Hazardous decomposition products
 - None.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
 - Route(s) of entry:
 - Ingestion: Yes
 - Inhalation: No
 - Contact: No
 - Toxicological information related to the product:
 - There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.
 - Toxicological information on main components of the mixture:
 - Toxicological information of the product:
 - N.A.
 - Toxicological information of the main substances found in the mixture:
 - alkenes, C11-C12, hydroformylation products, low boiling
 - a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg - Source: OECD TG 401
 - Test: LC50 - Route: Inhalation - Species: Rat > 0.7 mg/l - Source: 6h
 - Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
 - 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2
 - a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat = 3250 mg/kg
 - Test: LD50 - Route: Skin - Species: Rabbit > 1000 mg/kg
 - b) skin corrosion/irritation:
 - Test: Skin Sensitization - Species: Rabbit Positive
 - Corrosive/Irritating Properties:
 - Eye:
 - The product can cause irritation by contact
 - Sensitizing Properties:
 - Frequent contact may cause sensitization.

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Cancerogenic Effects:

No effects are known.

Mutagenic Effects:

No effects are known.

Teratogenic Effects:

No effects are known.

Additional Information:

Susceptibility to skin irritation and sensitization varies from person to person.

In a sensitized individual the allergic dermatitis may not appear until after several days or weeks of frequent and prolonged contact.

Therefore, even though the skin irritation potential is slight, skin contact should be avoided. Once sensitization has occurred, exposure of the skin to very small quantities of the material may cause erythema and edema.

For this reason, the contact with the skin should be avoided. Once sensitization has occurred, exposures to small amounts of material may cause erythema and edema locally.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

SECTION 12: Ecological information

12.1. Toxicity

Adopt good industrial practices, so that the product is not released into the environment.

Not available data on the mixture

Biodegradability: not readily biodegradable

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3,6,9-triazaundecamethylenediamine; tetraethylenepentamine - CAS: 112-57-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia > 14 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 2.1 mg/l - Duration h: 72

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

List of substances dangerous for the environment and corresponding classification:

>= 20% - < 25% alkenes, C11-C12, hydroformylation products, low boiling

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

>= 10% - < 20% Reaction product TOFA/TEPA

CAS: 68953-36-6

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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>= 0.49% - < 1% 3,6,9-triazaundecamethylenediamine; tetraethylenepentamine
 CAS: 112-57-2
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 vPvB Substances: None - PBT Substances: None
 12.6. Other adverse effects
 None
 Not available data on the mixture

SECTION 13: Disposal considerations

13.1. Waste treatment methods
 Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Dispose of this material and its container to hazardous or special waste collection point. Use appropriate container to avoid environmental contamination. This material and its container must be disposed of as hazardous waste. 91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

SECTION 14: Transport information

14.1. UN number
 UN Number: 3082
 14.2. UN proper shipping name
 ADR-Shipping Name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S
 14.3. Transport hazard class(es)
 Rail/Road(RID/ADR): 9,III
 ADR-Upper number: NA
 Air (ICAO/IATA): 9,III
 Sea (IMO/IMDG): 9,III
 EMS no: F-A,S-F
 14.4. Packing group
 14.5. Environmental hazards
 Marine pollutant: Yes
 14.6. Special precautions for user
 EMS no: F-A,S-F
 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
 N.A.
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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
 Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)
 Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)
 Dir. 98/24/EC (Risks related to chemical agents at work)
 Dir. 2000/39/EC (Occupational exposure limit values)
 Dir. 2006/8/EC
 Regulation (EC) n. 1907/2006 (REACH)
 Regulation (EC) n. 1272/2008 (CLP)
 Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 Regulation (EU) n. 453/2010 (Annex I)
 Regulation (EU) n. 286/2011 (ATP 2 CLP)
 Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
 Restrictions related to the product:

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Restriction 3

Restrictions related to the substances contained:

No restriction.

Directive n° 1999/45/CE (Dangerous Preparation) and d. s.m.i.

Legislative Decree no. 81 of the 9th of April 2008 Title XI "Dangerous substances - Chapter I - Protection against chemical agents"

Directive 2000/39/CE and s.m.i. (Professional threshold limit)

Legislative Decree no. 152 of the 3rd of April 2006 and subsequent modifications and additions. (Environmental regulations)

Directive 105/2003/CE (Seveso III): N.A.

ADR Agreement – IMDG Code – IATA Regulation

VOC (2004/42/EC) : N.A. g/l

Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments. Regulation (EC) nr 648/2004 (detergents).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Text of phrases referred to under heading 3:

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

H304 May be fatal if swallowed and enters airways.

H400 Very toxic to aquatic life.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

H314 Causes severe skin burns and eye damage.

H411 Toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

Paragraphs modified from the previous revision:

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

SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 14: Transport information

SECTION 15: Regulatory information

This document was prepared by a competent person who has received appropriate training.

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Main bibliographic sources:

NIOSH - Registry of toxic effects of chemical substances

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX'S - Dangerous properties of industrial materials

Insert here further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
OEL:	European threshold limit value
VLE:	Threshold Limiting Value.
WGK:	German Water Hazard Class.
TSCA:	United States Toxic Substances Control Act Inventory
DSL:	DSL - Canadian Domestic Substances List