Material Safety Data Sheet

According to Regulation No 1907/2006/EC – REACH, No. 2020/878 and No 1272/2008/EC - CLP

Date of revision : 06/10/2022 Version No: 8.1

Replaced version No:8.0

SECTION 1	Identification of the substance/mixture and of the company/undertaking	
1.1	**Product identifier**	**FOMAFIX amat.**
	Other name or labelling of product:	**Processing set for reversal film Fomapan R Díl-Part D**
	UFI	unallocated
1.2	**Relevant identified uses of the substance or mixture and uses advised against**	
	FOMAFIX amat.: Concentrate of acid fixer for processing of black and white films. Processing set for reversal film Fomapan R Díl-Part D: Concentrate of acid fixer for processing of black and white reversal films	
1.3	**Details of the supplier of the safety data sheet**	
	Supplier : Downstream User (Producer Mixture)	FOMA BOHEMIA spol. s r.o.(Ltd.) J. Krušinky 1737/6, 500 02 Hradec Králové tel: 495 733 111
	E-mail address and phone number	ilona.spackova@foma.cz +420495733368
1.4	**Emergency telephone number**	EU Poison Information Centres – see section 16

SECTION 2	Hazards identification
2.1	**Classification of the substance or mixture**
	(according to Regulation No 1272/2008 – CLP) The mixture is not classified as dangerous
	The most important adverse physicochemical, human health and environmental effects: Upon contact with the eyes can cause moderate irritation.
2.2	**Label elements (according to Regulation No 1272/2008/EC– CLP)**

hazard pictogram		irrelevant
signal word		irrelevant
hazard statement(s) (H- , EUH- phrases)		Not stated

precautionary statement (P- phrases)		Not stated

2.3	**Other hazards**
	The substance does not belong to the category of PBT, vPvB and are not included in the list drawn up in accordance with Article 59 (1) of REACH

SECTION 3	**Composition/information on ingredients**
3.2	**Mixtures**

Folder name	**Identification number**		**Content % mass in the solution**	**Classification**	**SCL, M, ATE, note**
Acetic acid	CAS number ES number Index number Registration number	64-19-7 200-580-7 607-002-00-6 01-2119475328-30	< 5	Flam Liq.3;H226 SkinCorr.1A;H314	Skin Corr 1A,H314: C≥90, Skin Corr1B;H314 25≤C<90 Skin Irrit2;H315: 10≤C<25 Eye Iriit2;H319: 10≤C<25 For substance there are Union workplace exposure limits – see to 8.1
Citric acid	CAS number ES number Index number Registration number	5949-29-1 201-069-1 Není přiděleno 01-2119457026-42-xxxx	< 1	Eye Irrit.2;H319 #STOT SE3;H335	For substance there are Union workplace exposure limits – see to 8.1

Solution
(Full text H-phrases… section 16)

SECTION 4	**First aid measures**
4.1	**Description of first aid measures**
	Prompt medical help is necessary if in eyes.
	After contact with skin: To take off immediately all contaminated clothing. Wash affected area thoroughly with water.
	Eye Contact: Remove any contact lenses and eye as soon as possible wash with plenty water. If necessary, open up violence cramped eyelids. Avoid contamination not contaminated eye wash liquid.. Do not neutralize. Seek medical help.
	Exposure by inhalation: Remove patient to fresh air; to get medical advice if affected person feels unwell
	Ingestion: Affected person calm, clear water rinse. Place to drink a glass (about 0.25-0,5 litre) of lukewarm water. **Do not induce vomiting**. If affected person vomit spontaneously, control to prevent inhalation of vomit. Do not administer activated charcoal, and no neutralizing agent. Call a physician or transport the affected person to a doctor.

	Personal protective equipment for first aid responders: In possible exposition is recommended using of personal protective equipments in accordance with section 8
4.2	**Most important symptoms and effects, both acute and delayed**
	Causes eye irritation in case of immediate contact. Vomiting, diarrhoea,damage od tooth enamel,dermatologic trouble, other information see to section 11
4.3	**Indication of any immediate medical attention and special treatment needed**
	Specific instruction is not known, symptomatic medical treatment

SECTION 5	**Firefighting measures**
5.1	**Extinguishing media**
	The product (liquid solution) is not flammable. Extinguishing agents adapt burning nearby.
	Inappropriate extinguishing media: are not specified
5.2	**Special hazards arising from the substance or mixture**
	Not known. – inflammable water solution. In fire is possible development of dangerous products decomposition- sulphur oxides
5.3	**Advice for firefighters**
	Due to possible decomposition products see 5.2 and 10.6 it is necessary to use special breathing technique, chemical suit

SECTION 6	**Accidental release measures**
6.1	**Personal precautions, protective equipment and emergency procedures**
	Zoom out persons not participating in the elimination of consequences of the accident out of reach.. When removing the consequences of the accident using the prescribed personal protective equipment.. No smoking and treatment with an open fire.
6.2	**Environmental precautions**
	Do not allow substance to enter soil, sewage system, surface and groundwater.
6.3	**Methods and material for containment and cleaning up**
	Let soak it to inert absorption products. Rinse the affected area thoroughly with water. Small leak strongly dilute with water.
6.4	**Reference to other sections**
	See sections 8 and 13

SECTION 7	**Handling and storage**
7.1	**Precautions for safe handling**
	While working to comply with basic requirements of safe work. Wear recommended personal protective equipment. Avoid contact with eyes. By manipulation prohibits eating, drinking and smoking, working with hot materials and open flame. Equipment must be equipped with means of extinguishing in enclosed areas, ventilation should be provided, either naturally or forced. Workplaces must be kept clean and escape routes must remain free.
7.2	**Conditions for safe storage, including any incompatibilities**

	Store in original containers in a cool, dry and well ventilated place. Containers should be stored separately from food. The working solution must be prepared according to the instructions.
7.3	**Specific end use(s)**
	See in 1.2. , Other uses – not available

SECTION 8	**Exposure controls/personal protection**

8.1 Control parameters

International limit values for chemical agents (Occupational exposure limits, OELs)

Acetic acid	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m³	ppm	mg/m³
Australia	10	25	15	37
Austria	10	25	20	50
Belgium	10	25	15	38
Canada - Ontario	10		15	
Canada - Québec	10	25	15	37
Denmark	10	25	20	50
European Union	10	25	20 (1)	50 (1)
Finland	5	13	10 (1)	25 (1)
France			10	25
Germany (AGS)	10	25	20 (1)	50 (1)
Germany (DFG)	10	25	20	50
Hungary		25		25
Ireland	10	25	15 (1)	37 (1)
Italy	10	25		
Japan - JSOH	10	25		
Latvia	10	25		
New Zealand	10	25	15	37
People's Republic of China		10		20 (1)
Poland		15		30
Romania	10	25		
Singapore	10	25	15	37
South Korea	10	25	15	37
Spain	10	25	15	37
Sweden	5	13	10 (1)	25 (1)
Switzerland	10	25	20	50
Turkey	10	25		
USA - NIOSH	10	25	15 (1)	37 (1)
USA - OSHA	10	25		
United Kingdom	[10]	[25]	[15]	[37]

	Remarks
Austria	Indicative Occupational Exposure Limit Values, proposal [5] ~ (for references see bibliography)
European Union	Bold-type: Indicative Occupational Exposure Limit Values and Limit Values for Occupational Exposure Binding Occupational Exposure Limit Value - BOELV ~ (1) 15 minutes average value (for references see bibliography)
Finland	(1) 15 minutes average value
Germany (AGS)	(1) 15 Minutes average value
Germany (DFG)	STV 15 minutes average value
Ireland	(1) 15 minutes reference period
People's Republic of China	(1) 15 minutes average value
Sweden	(1) 15 minutes average value
USA - NIOSH	(1) 15 minutes average value

United Kingdom	The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but were omitted from editions published from 2005 onwards.			
Citric acid	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m³	ppm	mg/m³
Germany (DFG)		2 (1)		4 (1)(2)
	Remarks			

Laying down limit values of biological exposure tests: not available

Acetic acid

DNELs

	Workers		Consumers	
Route of exposure	Acute effects local	Chronic effects local	Acute effect local	Chronic effects local
Inhalation	25 mg/m^3	25 mg/m^3	25mg/m^3	25 mg/m^3

PNECs

Environmental protection target	PNEC
Fresh water	3.06 mg/L
Freshwater sediments	11 mg/kg sediment dw
Marine water	0.3 mg/L
Marine sediments	1.1 mg /kg sediment dw
Microorganisms in sewage treatment	85 mg/L
Soil (agricultural)	0,47 mg/kg sediment dw

Citric acid

DNELs- Not available

PNECs

Environmental protection target	PNEC
Fresh water	0.44 mg /L
Freshwater sediments	34.6 mg/kg sediment dw
Marine water	0.044mg/L
Marine sediments	3.46 mg/kg sediment dw
Microorganisms in sewage treatment	1000 mg/L
Soil (agricultural)	33.1mg/kg sediment dw*

8.2 Exposure controls

Individual protection measures, incl. protective equipment

Technical measures: Working place must be equipped with a local suction and a source of running water if the eyes irrigation and washing of hands or affected parts of skin is needed. Tightly closed containers and equipment, natural and mechanical ventilation. Avoid contact with eyes and mouth, avoid inhalation and skin staining. Eating, drinking and smoking is prohibited while working. Avoid contact with food substances and drinks. After work wash hands with soap and water. Take off polluted clothes if needed.

Respiratory protection: During normal handling is not required.

Hand protection: : If contact with hand is pissible, there is recommended using of work gloves (EN 374 and EN 420), for examples KCL740/741 Dermatril- nitrile rubber, layer thickness 0,11 mm, breakthroug-time >480 min, KCL lapren 706-natural rubber, layer thickness 0,6 mm, breakthroug-time >480 min

Eye protection: Safety glasses/ safety shield (EN166)- recommended

Skin protection: Workwear, recommended long- sleeved protective work clothing

Environmental exposure: Secure the spaces against the leakage into watercourses, soil and sewage system.

SECTION 9	Physical and chemical properties	
9.1	**Information on basic physical and chemical properties**	
	Appearance	Colourless- Slightly yellow liquid
	Odour	Moderate, acetic
	pH (20 °C)	5.1-5.5
	Melting point/freezing point	< 0 °C
	Initial boiling point and boiling range	> 100 °C
	Flash point	Non-flammable - aqueous solution; acetic acid conc. 40 ° C
	Flammability	Inflammable
	Upper/lower flammability or explosive limits	Irrelevant- non-flammable liquid
	Vapour pressure	<20 mbar
	Relative vapour density	Information is not available.
	Absolute density	1.29-1.31 g/cm^3
	Solubility – watter	Water solution- full blended
	Partition coefficient: n-octanol/water	Irrelevant
	Auto-ignition temperature	Water solution- no self -ignition
	Decomposition temperature	Not determined for the mixture; citric acid - decomposition from 175 ° C
	Kinematic viscosity;	Information is not available
	Explosive properties	No explosive properties
	Particle characteristics:	Irrelevant
9.2	**Other information**	Not specified

SECTION 10	Stability and reactivity
10.1	**Reactivity**
	Under normal conditions the product is stable
10.2	**Chemical stability**
	Under normal conditions the product is stable
10.3	**Possibility of hazardous reactions**
	They are not known for the product. The components present may react with hazardous decomposition products when reacted with alkalis. However, due to their content in the mixture, the occurrence of dangerous reactions is not expected
10.4	**Conditions to avoid**
	The conditions under which dangerous reactions could occur are not known. Protect from direct long term exposure to heat and sunlight - product degradation may occur
10.5	**Incompatible materials**
	Not specified
10.6	**Hazardous Decomposition Products**

	# Possibility of release of sulfur and carbon oxides during thermal decomposition

SECTION 11	**Toxicological information**

11.1	**Information on hazard classes as defined in Regulation (EC) No 1272/2008**
Acute toxicity	# Based on available data, the criteria for this classification are not match up Toxic effects are not expected under normal conditions use of product **Acetic acid** *LD50 /oral/rat: >3310 mg/kg bw *LC50 /inhal/rat/4 hr: 8.5-12.7 mg/L air source : substance Brief Profile: *http://echa.europa.eu/* **Citric acid** LD50/oral/mouse : 5400 mg/kg bw * LD50/dermal/ rat :> 2000 mg/kg bw * LC50/ inhal,(for aerosol or particle): data is not available. * Data for Citric acid anhydrous
Skin corrosion/irritation	Based on available data, the criteria for this classification are not match up **Citric acid** Dermal- rabbit: 500 mg/24hr – moderate irritant
Serious eye damage/eye irritation	Based on available data, the criteria for this classification are not match up **Citric acid** Eye - rabbit,: 750 ug/24hr. – strong irritant
Respiratory sensibilisation/ skin sensibilisation	Based on available data, the criteria for this classification are not match up The substance has no sensitizing effects
Germ cell mutagenicity	Based on available data, the criteria for this classification are not match up The substance has no mutagenic effects
Carcinogenicity	Based on available data, the criteria for this classification are not match up The substance has no carcinogenic effects
Reproductive toxicity	Based on available data, the criteria for this classification are not match up. There isn´t precondition for reproductive toxicity
Specific target organ toxicity — single exposure	Based on available data, the criteria for this classification are not match up There isn´t precondition for organ toxicity through single exposure
Specific target organ toxicity — repeated exposure	Based on available data, the criteria for this classification are not match up There isn´t precondition for organ toxicity through repeated exposure
Aspiration hazard	Based on available data, the criteria for this classification are not match up Aspiration hazard are not expected under normal conditions use of product

<u>Likely routes of exposure and symptoms related to the physical, chemical and toxicological characteristics:</u>
Harmfull effect for health aren´t expected under normal using and observing the hygienic regulations Toxicity oral. (ingestion / swallowing): In ingestion may causes upper aitways irritation and digestive tract damage- a stomach ache, womiting, diarrhoea
Toxicity inhal. (inhalation): Harmfull effect for health aren´t expected under normal using. Mucous membrane irritation, cough dyspnoea and may be during strong heating
Toxicity dermal. Harmfull effect for health aren´t expected under normal using.
Eye Contact:

Causes serious eye irritation in case of contact with eyes.	
Immediate, delayed and chronic effects of short and long term exposure: Data not available. The effects through prolonged or repeated exposure- see above .	
11.2.	**Information on other hazards**
	Not specified

SECTION 12	**Ecological information**
12.1	**Toxicity**
	Information for mixture isn´t available. Toxic effect aren´t expected due to mixture composition. Citric acid is not toxic - It uses as additive in food products (E330) **Acetic acid** LC50, fish (Oncorhynchus mykis)/96 hr: >1000 mg/L LC50 invertebrates (Daphnia)/48 hr: >1000 mg/L EC50 water algae (Skeletonema costatum)/72 hr: : >1000 mg/L **Citric acid** LC100/ fish (Carassius auratus) = 625 mg/L * EC50/invertebrates (Daphnia magna) = 100 mg/L * NOEC/algae (Scenedesmus quadricauda)/8d = 425 mg/L * * The data for citric acid anhydrous
12.2	**Persistence and degradability**
	Information for mixture isn´t available. Citric acid and acetic acid: well biodegradable. Presumption of good biodegradability also for other organic substances
12.3	**Bioaccumulative potential**
	Information for mixture isn´t available. Substances haven´t bioacumulative potential -bioaccumulative potential is not expected
12.4	**Mobility in soil**
	Information for mixture isn´t available. The product is soluble in water
12.5	**Results of PBT and vPvB assessment**
	Information for mixture isn´t available. Substances are not identified as a PBT or vPvB
12.6.	**Endocrine disrupting properties**
	The mixture doesn´t contein endocrine disrupting substances
12.7	**Other adverse effects**
	Not known.

SECTION 13	**Disposal considerations**	
13.1	**Waste treatment methods**	
	Code and type of waste	09 01 04* – fixer solutions 15 01 10 * - packaging containing residues of hazardous substances
	The recommended method of disposal of the substance/	Allow the spilled product to soak into the inert absorbent material and hand it over to an authorized person (a disposal company authorized to dispose of the waste) for disposal. Hand over the

	preparation:	remaining unused product to an authorized person for disposal. Do not flush into drains! It must not be disposed of with municipal or other wastes
	Physical / chemical properties that may affect waste management	Labeling according to Annex III of Directive 2008/98 / EC: For the product used containing silver compounds HP14- "Ecotoxic" Unused product does not show hazardous properties
	The recommended method of disposal of contaminated product packaging:	Emptied containers (after thorough flushing) can be reused, or put away into a container, designated for separate collection (plastics).
	Waste legislation	Directive No. 2008/98/ES

SECTION 14	**Transport information**

Land transport (road / rail) ADR/RID , Maritime transport IMDG, Air transport ICAO-TI and IATA-DGR:
For the transport of the product **is not** classified as a dangerous thing (goods).

14.1	UN number or ID number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard class(es)	Not applicable
14.4	Packing group	Not applicable
	Labels	
14.5	Environmental hazard	See to section 12
	Marine pollutant	Not
14.6	Special precautions for user	See to section 8
14.7	Maritime transport in bulk according to IMO instruments	Not applicable

SECTION 15	**Regulatory information**
15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**
	Regulation (EC) No 1907/2006, registration, evaluation, authorisation, restriction chemicals (REACH) Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures Commission Decision 2014/955/EU amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council European Agreement concerning the international carriage of dangerous goods (ADR) International Maritime Dangerous Goods Code (IMDG Code) IATA Dangerous Goods Regulations (DGR)
15.2	**Chemical safety assessment**
	The chemical safety assessment for the product was´nt made.

SECTION 16	**Other information**

 # Abbreviations, symbols

Flam Liq.3	Flammable liquid (Category 3)
Skin Corr. 1A	Skin corrosion (Category 1A)
Eye Irrit.2	Serious eye irritation (Category 2)
STOT SE3	Specific target organ toxicity - single exposure (category 3), respiratory tract irritation

CLP : Regulation (EC) č.1272/2008
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
SVHC: Substance of very hight concerns
PBT: Persistent, bioaccumulative and toxic
vPvB **:**(very) Persistent, (very) Bioaccumulative
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail
ICAO: International Civil Aviation Organisation
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level
PNEC: Predicted No-Effect Concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
EC50: Median Effective Concentration
LOAEL: Lowest observed adverse effect level
NOAEL: No Observed Adverse Effect Level
NOEC: No Observed Effect Concentration
bw: body weight
ATE: Acute Toxicity Estimate
M: M- factors- multiplying factor
SCL: Specific Concentration Limit

Materials used for the processing of safety data sheet

Information provided by the producer- Material Safety Data Sheets (MSDS) for chemical substances **,**
GESTIS database (www.gduv.de), European Chemicals Agency http://echa.europa.eu/

Classification (according to Regulation No 1272/2008 – CLP): calculation method

#H-phrases **:**

H226	Flammable liquid and vapour
H319	Causes serious eye irritation
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation.

Guidance regarding the training of workers:

Workers coming into contact with hazardous chemicals or products must have access to data which are presented in this MSDS and be familiar with them clearly. Person transporting hazardous chemicals and preparations must be familiar with guidelines for emergency response in accordance with regulations on hazardous goods within the meaning of ADR / RID.

The information contained in this MSDS are currently valid data and best practices for use and handling of this substance under normal conditions. Any other use or handling of this mixture which is not consistent with those of MSDS excludes the responsibility for defects, more precisely for damage for which the producer, importer or retailer would be otherwise responsible.

EU Poison Information Centres

Country	Poison Centre	Tel number 24hour every day/ other time
Austria	Poison Information Center/Vergiftungsinformationszentrale	+ 43 1 406 43 43
Belgium	Cente Antipoisons-Antigifcentrum center	+32 70 245 245
Bulgaria	National Toxicology Information center- Hospital for Active Medical Treatment and Emergency Medicine 'N.I.Pirigov', Sofia	+359 2 9154 409
Croatia	Poison Information Center/ Centar za kontrolu otrovanja	+385 1 2348 342
Denmark	Poison Center Hotline	+45 82 12 12 12
Estonia	Poisoning centre Hotline Mürgistusinfo	+372 16662
Finland	Poison Information Centre	+358 9 471977
France	Centre Antipoison et de Toxicovigilance de Paris	+33 1 40 05 48 48
Germany	Poison Information Centre in Berlin	+49 30 192 40
Greece	Poison Information Centre	+30 2107793777
Iceland	Poisons Information Center (Eitrunarmiðstöð)	+354 543 2222
Ireland	National Poisons Information Centre	+353 1 809 2566
Hungary	Poison Information Service (National Institute for chemical safety) Információszolgáltatás akut mérgezés eseén)	+36 80 201 199
Italy	Poisons Center CAV-Centro Antiveleni Roma	+39 06 68593726, +39 06 3054343, +39 06 49978000
Latvia	Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs	+371 67042473
Lithuania	Poison Information Bureau -PIB	+370 8-5 236 20 52
Luxembourg	Belgian Poison Center	+352 8002 5500
Netherlands	National Poisons Information Center (nationaal vergiftigingen Informatie centrum,NVIC)	+031 (0) 30 274 8888
Norway	Poison center (Giftinformasjonen)	+47 22 59 13 00
Poland	National Poisons Information Centre Lodz	+48 42 63 14 724
Portugal	Centro de Informação Antivenenos	+351 808 250 143
Romania	National iIstitute for Public Health (Centrum National de Informare Toxicologica)	+40 21 318 36 06
Slovakia	National Toxicological Information Centre (Národné toxikologické informačné centrum	+421 2 54 774 166
Spain	Toxicological Information Service (Servicio de Información toxicologica)	+34 91 562 04 20
Sweden	Giftinformationscentralen (Swedish poisons Information Centre)	112/ mon-fri 9.00-17.00 +46 10 456 6700
Switzerland	The Swiss Toxicological Information Centre (STIC)	145
United Kingdom	National Poisons Information Service -NPIS(Birmingham)	England, Wales, Scotland 111
Turkey	Toxicolog Department and Poisons Centre	+ 90 0312 433 7001,+90 0800 314 7900

Revised safety data sheet:

Version 8.1: change in the classification of the citric acid component (according to Commission Regulation (EU) 2021/849)