Material Safety Data Sheet

According to Regulation No 1907/2006/EC – REACH, No. 453/2010 and No 1272/2008/EC - CLP

Date issue : 11/21/2013

Date of the 5th version: 11/21/2013

SECTION 1	Identification of the substance/mixture and of the company/undertaking	
1.1	Product identifier	**FOMAFIX**
	Other name or labeling of product:	
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Concentrate of acid Rapid Fixer for processing of RTG 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, 501 04 Hradec Králové tel: 495 733 111
	Address elektronic mail ant telef. number	ilona.spackova@foma.cz +420495733368
1.4	Emergency telephone number (Czech)	Toxikologic institute (TIS) Na Bojišti 1, 128 21 Praha 2 Tel. 224919293, 224915402 (continuous telephone information service)

SECTION 2	Hazards identification
2.1	**Classification (according to Regulation No 1272/2008 – CLP)**
	The mixture is not classified - shows no hazardous properties
	Classification (according to Directive No 67/548/EHS – (DSD)
	The mixture is not classified - shows no hazardous properties
	<u>The most important adverse physicochemical, human health and environmental effects:</u> Upon contact with the eyes can cause moderate irritation.

2.2	Label elements (according to Regulation No 1272/2008/EC– CLP)	
Identification of product		**FOMAFIX**
hazard pictogram		
signal word		
hazard statement(s) (H- , EUH- phrases)	EUH 210	Safety data sheet available on request.
precautionary statement (P- phrases)		
		FOMA BOHEMIA spol. s r.o. J. Krušinky, 501 04 Hradec Králové tel: 495 733 111

2.2	Label elements (according to Directive 67/548/EHS – DSD) – possible to data 06/01/2015	
Identification of product		**FOMAFIX**
hazard pictogram		
R- phrase		
S-phrase		
		FOMA BOHEMIA spol. s r.o. J. Krušinky, 501 04 Hradec Králové tel: 495 733 111

2.3	Other hazards
	Sodium tetraborite decahydrate belongs to the category SVHC

SECTION 3	Composition/information on ingredients
3.1	Substances

Folder name	Index number	CAS number	ES number	Content % in the solution	Classification	
Acetic acid	607-002-00-6	64-19-7	200-580-7	< 5	Flam Liq.3;H226 SkinCorr.1A;H314	R10 C;R35
Sodium tetraborite decahydrate	005-011-01-1	1303-96-4	215-540-4	< 2	Repr.1B;H360FD	Repr.Cat.2; R60,61
Trisodium nitrilotriacetate (Na3NTA) (Dissolvine A 92)	607-620-00-6	5064-31-3	225-768-6	< 1	AcuteTox4;H302 Eye Irrit.2;H319 Carc.2;H351	Xn;R22 Xi;R36 CarcCat3;R40
Citric acid	není přiděleno	5949-29-1	201-069-1	< 1	Eye Irrit.2;H319	Xi;R36

Solution

(Full text R, H-phrases… section 16)

SECTION 4	First aid measures
4.1	Description of first aid measures
	Disabled person to lead from the contaminated area, bringing it into a state of peace and to facilitate breathing by loosening clothing, watch, and if necessary to maintain its vital functions. If you are experiencing symptoms of acute injury (shortness of breath, persistent cough, chest pain, nausea, impaired sensory perception, fainting, etc.), call a physician or transport the injured person to a doctor.
	After contact with skin: 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, lukewarm water rinse eyes, mouth and nasal cavity.
	Ingestion: Affected person calm, clear water rinse. Place to drink a glass (about 0.4 dl) of cold water. Do not induce vomiting. If affected persone 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.
4.2	Most important symptoms and effects, both acute and delayed
	Not known
4.3	Indication of any immediate medical attention and special treatment needed
	In the workplace, running water and soap.

SECTION 5	Firefighting measures
5.1	Extinguishing media
	The product (liquid) is not flammable. Extinguishing agents adapt burning nearby.
	Inappropriate extinguishing media: N.a.
5.2	Special hazards arising from the substance or mixture
	At elevated temperatures or by contact with acid can release sulfur dioxide
5.3	Advice for firefighters: Breathing apparatus

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. Ventilate enclosed spaces. When removing the consequences of the accident using the prescribed personal protective equipment. When working on the disposal of the accident contained breathing apparatus and full protective suit. 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 at

	least strongly dilute with water.
6.4	Reference to other sections
	See section 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.
7.3	Specific end use(s)
	See in 1.2. , Other uses – not available

SECTION 8	Exposure controls/personal protection
8.1	Control parameters
	Government Regulation No 361/2007 Coll. - Conditions for health workers at work and occupational exposure limits in the air of workplaces and ways of measuring and evaluating. (Czech) Acetic acid PEL 25 mg/m^3 NPK-P 35 mg/m^3 Substance is not listed in Notice. No.432/2003 Coll., Laying down limit values of biological exposure tests: not available
	DNEL : (acetic acid) Workers General Long-Term – inhal., local effect 25 mg/m^3 Short-Term – inhal., local. effect 25 mg/m^3
	PNEC : (acetic acid) Freshwater 3 mg/l Seawater 0.3 mg/l Soil 0.47 ug/kg sediment dw Mikroorganisms in Sewasge Treatment Plant 85 mg/l
8.2	Exposure controls
	Individual protection measures, incl. protective equipment
	Technical measures: Working with a local source of suction and running water for the irrigation needs of the eyes, wash your hands or contaminated parts of the skin. Tightly closed containers and equipment, natural and mechanical ventilation. Do not allow product to the eyes, mouth, inhalation, skin contact. Do not eat, drink or smoke. Avoid contact with food substances and drinks. After work wash hands with soap and water. Alternatively, take off contaminated clothing.
	Respiratory protection: During normal handling is not required.
	Hand protection: Use rubber (PE, nitril) gloves

	Eye protection: Safety glasses- recommended
	Skin protection: Workwear
	Environmental exposure: Provide preventing spill into waterways, soil and drainage.

SECTION 9	Physical and chemical properties	
9.1	Information on basic physical and chemical properties	
	Appearance	Sightly yellow liquid
	Odour	Moderate, acetic
	pH (20 ^{o}C)	5,5-5,8
	Melting point/freezing point	< 0 ^{o}C
	Initial boiling point and boiling range	> 100 ^{o}C
	Flash point	Fireproof
	Evaporation rate	N.a.
	Flammability	Incombustible
	Upper/lower flammability or explosive limits	Irrelevant
	Vapour pressure	<20 mbar
	Vapour density	Unknown
	Oxidising properties	No
	Relative density	1,29-1,31 g/cm^3
	Solubility – watter	Solution
	Partition coefficient: n-octanol/water	Unknown
	Auto-ignition temperature	Irrelevant
	Decomposition temperature	N.a.
	Viscosity;	N.a.
	Explosive properties	No
9.2	Other information	
	Fat solubility	N.a.
	Conductivity	N.a.

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

	Strong minerale acids
10.4	Conditions to avoid
	High temperature
10.5	Incompatible materials
	Not available
10.6	Hazardous Decomposition Products
	Possible development of sulfur dioxide at elevated temperatures and reaction with acids

SECTION 11	Toxicological informations

11.1	Information on toxicological effects

Acute toxicity	Based on available data, the criteria for this classification are not match up
Skin corrosion/irritation	Based on available data, the criteria for this classification are not match up
Serious eye damage/eye irritation	Based on available data, the criteria for this classification are not match up
Respiratory or skin sensitisation	Based on available data, the criteria for this classification are not match up
Germ cell mutagenicity	Based on available data, the criteria for this classification are not match up
Carcinogenicity	Based on available data, the criteria for this classification are not match up
Reproductive toxicity	Based on available data, the criteria for this classification are not match up
Specific target organ toxicity — single exposure	Based on available data, the criteria for this classification are not match up
Specific target organ toxicity — repeated exposure	Based on available data, the criteria for this classification are not match up
Aspiration hazard	Based on available data, the criteria for this classification are not match up

LD_{50} oral rat: 3310 mg/kg (acetic acid)

LD_{50} derm., rabbit : 1060 mg/kg (acetic acid))

<u>Likely routes of exposure and symptoms related to the physical, chemical and toxicological characteristics:</u>

Toxicity oral. (ingestion / swallowing):

Ingestion may cause irritation or burns to the digestive tract. It causes nausea.

Toxicity inhal. (inhalation):

The product (solution) is not dangerous.

Toxicity dermal.

The product (solution) is not dangerous.

Eye Contact:

Upon contact with the eyes can cause moderate irritation.

Immediate, delayed and chronic effects of short and long term exposure:
N.a.

SECTION 12	Ecological information
12.1	Toxicity
	Low toxicity to the environment
12.2	Persistence and degradability
	Acetic acid: well biodegradace. Well biodegradace is supposed at other substances.
12.3	Bioaccumulative potential
	It is not expected
12.4	Mobility in soil
	N.a., the product is soluble in water
12.5	Results of PBT and vPvB assessment
	Not available. Substances are not identified as a PBT or vPvB
12.6	Other adverse effects
	Not available

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/ preparation:	Spilled product let soak up with inert absorbent material and pass the person authorized to remove. Must not be disposed of with household or other waste. Do not wash into sewers.
	The recommended method of disposal of contaminated product packaging:	Emptied containers (after thorough flushing) can be reused, or to defer to container, designated for separate collection (plastics).
	Waste legislation	Directive No. 2008/98/ES

SECTION 14	Transport information

Land transport (road / rail) ADR/RID :

For the transport of the product is not classified as a dangerous thing (goods).

14.1	UN number	
14.2	UN proper shipping name	
14.3	Transport hazard class(es)	
14.4	Packing group	
	Classification code	

	Kemmler code	
	Labels	
14.5	Environmental hazards	see SECTION 12
14.6	Special precautions for user	
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	

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, autorisation, restriction chemicals (REACH) Regulation (EC) No 453/2010 Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures Direction No 67/548/EHS (DSD), 1999/45/ES (DPD) Act No. 350/2011 Coll. On chemical substances and mixtures Decree No. 381/2001 Coll. Establishing the Waste Catalogue. Government Regulation No. 361/2007 Coll. On the health conditions of workers at work European Agreement concerning the international carriage of dangerous goods (ADR) as amended by No. 8/2013 Coll.
15.2	Chemical safety assessment
	The chemical safety assessment for the product was´n made.

SECTION 16	
Abbreviations, symbols	
Carc.2	Carcinigenity (Category 2)
Flam Liq.3	Flammable liquid
Repr.1B	Reproductive toxicity (Category 1B)
Acute Tox.4	Hazardous to the aquatic environment, acute (Category 4)
Skin Corr. 1A	Skin caustic (burns) (Cat. 1A)
Eye Irrit.2	Serious eye irritation (Cat. 2)
Carc. cat.3	Carcinigenity (Category 3)
Repr.Cat.2	Reproductive toxicity (Category 2)
C	caustic
Xn	harmfull
Xi	irritation
CLP	Regulation (ES) č.1272/2008
DPD	Direction (ES) 1999/45/ES
PBT	Persistent, bioaccumulation, toxic
vPvB	High persistent, high bioaccumulation

SVHC	Substance of very hight concerns
DNEL	Derivated No-Effect Level
PNEC	Prediction No-Effect Concentration

Materials used for the processing of safety data sheet	
Information provided by the producter Material Safety Data Sheets (MSDS) for chemical substances	
R, H-phrases **:**	
H351	Suspected of causing cancer
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H319	Causes serious eye irritation
H314	Causes severe skin burns and eye damage
H360FD	May damage fertility or the unborn child
R10	Flammable
R22	Harmful if swallowed
R35	Cause severe burns
R36	Irritating to eyes
R40	Limited evidence of a carcinogenic effect
R60	May impair fertility
R61	May cause harm to the unborn child
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 substance, which is not consistent with those of MSDS, excludes liability for defects, respectively damage, which would otherwise meet the producter, importer or retailer.	
Revised safety data sheet:	
Reason for change: new legislation Regulation ES č. 1907/2006/ES – REACH Regulation ES č. 1278/2008, 790/2009 - CLP Edit all points MSDS due to the new structure prescribed MSDS - Regulation ES č. 453/2010	