Material Safety Data Sheet

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

Date of revision : 201/23/2015 Version No: 3.1

Replaced version No: 3.0

SECTION 1	Identification of the substance/mixture and of the company/undertaking	
1.1	Product identifier	**FOMAFIX P-I; part B**
	Other name or labeling of product:	
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Three-piece powder 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 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 (Czech)	Toxicologic 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)**
	Acute Tox.4;H302 Eye Irrit.2;H319
	The most important adverse physicochemical, human health and environmental effects: Causes serious eye irritation.Harmful if swallowed.

2.2	Label elements (according to Regulation No 1272/2008/EC– CLP)
Identification of product	**FOMAFIX P-I, part B**
hazard pictogram	
signal word	Warning

hazard statement(s) (H-, phrases)	*H302* *H319*	Harmful if swallowed. Causes serious eye irritation.
precautionary statement (P- phrases)	P305+P351+P338 P261	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing Avoid breathing dust.
		Contein:amonium chloride
		FOMA BOHEMIA spol. s r.o., J. Krušinky 1737/6, 500 02 Hradec Králové tel: 495 733 111

2.3	Other hazards
	The substance does not belong to the category of PBT, vPvB, SVHC

SECTION 3		Composition/information on ingredients					
3.1		Substances					
Folder name	Registration number	Index number	CAS number	ES number	Content % in the solution	Classification	
Ammonium chloride	Not available	017-014-00-8	12125-02-9	235-186-4	100	Acute Tox.4;H302 Eye Irrit.2;H319	Xn;R22 Xi;R36

(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, warm 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 is not very flammable. Extinguishing agents adapt burning nearby.
	Inappropriate extinguishing media: N.a.
5.2	Special hazards arising from the substance or mixture
	Incombustible substance; Maybe it emits flammable gases in case fire (ammonia or hydrogen chloride)
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
	The spilled product by mechanical collection. According to the extent of leakage select the appropriate tools: broom, dustpan, vacuum equipment, etc. Minimize dust. Gather into a suitable labeled container for further processing or disposal. Spill site with water. Contaminated washing water contain and remove.
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. Apparatus, which works with the substance must be tight, equipped with emergency escape in case of space (emergency baths, catch pits) and to prevent leakage into the environment. Electrical equipments must be installed in non explosion proof (including lighting). Workplaces must be kept clean and escape routes must remain free.

7.2	Conditions for safe storage, including any incompatibilities
	Store in original container 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) Amonium chloride: PEL 5 mg/m^3 NPK-P 10 mg/m^3 Substance is not listed in Notice. No.432/2003 Coll., Laying down limit values of biological exposure tests: not available
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.
	Respiratory protection: During normal handling is not required. In sensitive people (due to possible respiratory irritation) is recommended when mixing solution respirator use
	Hand protection: Use rubber (PE, nitril) gloves
	Eye protection: Safety glasses
	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	White powder
	Odour	As ammonia
	pH	4,5-5,5
	Melting point/freezing point	340°C
	Initial boiling point and boiling range	520°C
	Flash point	Fireproof
	Evaporation rate	N.a.
	Flammability	Incombustible
	Upper/lower flammability or explosive limits	Irrelevant
	Vapour pressure	1,3 kPa

	Vapour density	Unknown
	Oxidising properties	No
	Relative density	1,53
	Solubility – watter	cca 370 g/l
	Partition coefficient: n-octanol/water	-4,37
	Auto-ignition temperature	Irrelevant
	Decomposition temperature	N.a.
	Viscosity;	Irrelevant
	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
	Unknown.
10.4	Conditions to avoid
	N.a.
10.5	Incompatible materials
	N.a.
10.6	Hazardous Decomposition Products
	Ammonia,hydrogen chloride

SECTION 11	Toxicological informations

11.1	Information on toxicological effects
Acute toxicity	LD_{50} oral rat: 1650 mg/kg Harmful if swallowed
Skin corrosion/irritation	Skin-rabbit –moderate irritation -24hour
Serious eye damage/eye irritation	Causes serious eye damage
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	May cause irritation mucous membrane

Likely routes of exposure and symptoms related to the physical, chemical and toxicological characteristics:

Toxicity oral. (ingestion / swallowing):

Harmful

Toxicity inhal. (inhalation):

Harmful- May cause irritation mucous membrane

Toxicity dermal.

Moderate irritation

Eye Contact:

Causes serious eye irritation

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

N.a.

SECTION 12	Ecological information
12.1	Toxicity
	LC_{50}(fish)/96hour: 209-725 mg/l EC_{50}(daphnia)/16hour: n.a. EC_{50}(water algae)/72hour: n.a. mg/l
12.2	Persistence and degradability
	Inorganic substances- Irrelevant
12.3	Bioaccumulative potential
	It is not expected
12.4	Mobility in soil
	N.a.
12.5	Results of PBT and vPvB assessment
	Not available. Substances are not identified as a PBT or vPvB
12.6	Other adverse effects
	Harmful for aquatic life

SECTION 13	Disposal considerations

13.1	Waste treatment methods	
	Code and type of waste	09 01 04* –solutions of fixers 15 01 10 * - packaging containing residues of hazardous substances
	The recommended method of disposal of the substance/ preparation:	The spilled product by mechanical collection. Minimize dust. Gather into a suitable labeled container for further processing or disposal. Spill site with water. Contaminated washing water and mix the solution contain and remove. 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 sewerage.
	The recommended method of disposal of contaminated product packaging:	Emptied containers pass to the autorized person
	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	
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) applicable as from 1. January 2015 IMDG Code,MSC 93/22/Add.2 IATA Dangerous Goods Regulations, 56th Edition
15.2	Chemical safety assessment
	The chemical safety assessment for the product was´n made.

SECTION 16	
Abbreviations, symbols	
Eye Irrit.2	Serious eye irritation(Category 2)
Acute Tox.4	Acute toxicity (oral), Hazard (Category 4)
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 **:**

H302	Harmful if swallowed
H319	Causes serious eye irritation
R22	Harmful if swallowed
R36	Irritating to eyes.

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:

version 3.1 – changes in section 1.3 and 2.2– address of supplier