

## **Material Safety Data Sheet**

According to Regulation No 1907/2006/EC - REACH, No. 2015/830 and No 1272/2008/EC - CLP

Date of revision : 02/16/2016 Version No: 5.0

Replaced version No: 4.1

SECTION 1	Identification of the substance/mixture and of the company/undertaking		
1.1	Product identifier	Black and white reversal film set, part B <sub>1</sub>	
	Other name or labeling of product:		
1.2	Relevant identified uses of the substance of Concentrate of bleaching bath for processing	r mixture and uses advised against ng of black and white reversal film Fomapan R100	
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)  Eye.Irrit.2;H319 Skin Irrit.2;H315
	The most important adverse physicochemical, human health and environmental effects:  May cause serious eye irritation and skin irritation.

2.2 Label elements (accordi		ing to Regulation No 1272/2008/EC- CLP)
Identification of product		Black and white reversal film set, part B₁
hazard pictogram		1
signal word		Warning

hazard	H319	Causes serious eye irritation.
statement(s) (H-, phrases)	H315	Causes skin irritation
· · · · ·		
precautionary	P102	Keep out of reach of chidren.
statement	P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove
(P- phrases)		contact lenses if present and easy to do. Continue rinsing.
	P302+ P352	IF ON SKIN: Wash with plenty of water/soap.
		Contain: Sulphuric acid
		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					
3.2	Mixtures					
Folder name	Registration number	Index number	CAS number	ES number	Content % in the solution	Classification
Sulphuric acid	01- 2119458838 -20-0000	016-020- 00-8	7664-93-9	231-639-5	< 15	SkinCorr.1A;H314

## Solution

(Full text H-phrases... section 16)

SECTION 4	First aid measures
4.1	Description of first aid measures
	Lead the disabled person from the contaminated area, bring him/her into a state of peace and facilitate breathing by loosening clothing, watch, and if necessary 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 wash eyes with plenty of water as soon as possible. If necessary, use force to open tightly closed eyelids. Take care not to rinse contaminated water into the non-affected eye. Do not neutralize. Seek medical help.
	Exposure by inhalation: Remove patient to fresh air, rinse eyes, mouth and nasal cavity with lukewarm water.
	Ingestion: Calm affected person, rinse his mouth with clean water. Force the affected person to drink a glass of cold water (cca 0,4 dl). Do not induce vomiting. If affected person vomit spontaneously, control to prevent inhalation of vomit. Do not administer either activated charcoal or 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 must be adapted to burning substances in surrounding.
5.2	Inappropriate extinguishing media: water  Special hazards arising from the substance or mixture
5.3	At elevated temperatures or by contact with acid can release sulphur dioxide  Advice for firefighters: Breathing apparatus, workwear

SECTION 6	Accidental release measures
6.1	Personal precautions, protective equipment and emergency procedures
	Take persons not participating in removing the consequences of the accident out of reach. Ventilate enclosed spaces. Use the prescribed personal protective equipment when removing the consequences of the accident. Use breathing apparatus and complete protective suit when working on the disposal of the accident. Smoking and manipulation with open fire is prohibited.
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 section 13

SECTION 7	Handling and storage
7.1	Precautions for safe handling Follow the safety rules while working. Wear recommended personal protective equipment. Avoid contact with eyes. Eating, drinking, smoking, working with burning materials and open fire is prohibited while working. Equipment must contain fire extinguishers in enclosed areas, ventilation must be ensured naturally or mechanically in enclosed spaces. 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  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) sulphuric acid (as SO <sub>3</sub> ): PEL 1 mg/m <sup>3</sup> NPK-P 2 mg/m <sup>3</sup> Substance is not listed in Notice. No.432/2003 Coll., Laying down limit values of biological exposure				
	tests: not available  DNEL: (sulphuric acid) Workers General Short-Term – inhal., local. effect 0.1 mg/m³ Long-Term – inhal., local. effect 0.05 mg/m³ PNEC: Freshwater 0.0025 mg/l Marine water 0.0025 mg/l Sediment in freshwater 0.002 mg/kg sediment dw				
	Sediment in marine water  0.002 mg/kg sediment dw  Mikroorganisms in Sewasge Treatment Plant (STP)  8.8 mg/				
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 poluted clothes if needed.				
	Respiratory protection: During normal handling is not required. In sensitive people (due to possible respiratory irritation) is recommended respirator use.				
	Hand protection: Use rubber (PE) gloves				
	Eye protection: Safety glasses				
	Skin protection: Workwear				
	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 liquid
	Odour	nonspecific
	pH	1-3
	Melting point/freezing point	cca 0 ° C
	Initial boiling point and boiling range	cca 100 ° 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	1.24-1.25 g/cm <sup>3</sup>
	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	
	Reactions with metals, the possibility of hydrogen	
10.4	Conditions to avoid	
	High temperature. During the dilution Is necessary pour the product into water, not reversely!	
10.5	Incompatible materials	
	Iron, light metals, strong bases	
10.6	Hazardous Decomposition Products	
	Not available	

SECTION 11	Toxicological informations	
11.1 Information on toxicological effects		
Acute toxici	ty	Based on available data, the criteria for this classification are not match up
Skin corrosion/irritation		Causes serious skin irritation
Serious eye damage/eye irritation		Causes serious eye irritation.
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

Sulphuric acid

Acute toxicity

 $LD_{50}$ , oral, rat = 2140 mg/kg

 $LC_{50}$ , inhal.,rat(2h) = 375 mg/m<sup>3</sup>

 $LC_{50}$ , inhal., mouse(4h/8h) = 0.85 mg/l) / 0,6 mg/l

NOAEC, inhal =  $19.3 \text{ mg/m}^3$ 

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

Toxicity oral. (ingestion / swallowing):

Ingestion may cause strong burning of the digestive tract.

Toxicity inhal. (inhalation):

The product (steams) causes respiratory system irritation.

Toxicity dermal.

Causes skin irritation.

Eye Contact:

Causes serious eye irritation.

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

N.a.

SECTION	Ecological information
12	
12.1	Toxicity
	Sulphuric acid is strong mineral acid, do to low pH has harmful local effect to aquatic organism Toxicity for fish: $LC_{50}$ , 96 h., Lepomis macrochirus = 16 - 28 mg/l Toxicity for invertebrade: $LC_{50}$ , 48 h., Daphnia magna > 100 mg/l Toxicity for algae: $IC_{50}$ , 72 h., Desmodesmus subspicatus > 100 mg/l $EC_{10}/LC_{10}$ nebo NOEC, waterfresh fish = 0.025 mg/l $EC_{10}/LC_{10}$ nebo NOEC, invertebrade = 0.15 mg/l
12.2	Persistence and degradability
	Inorganic 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
	WGK = 1

SECTION	Disposal considerations	
13		
13.1	Waste treatment methods	
	Code and type of waste	09 01 05* – bleaching solutions and soutions of belaching fixers
		15 01 10 * - packaging containing residues of hazardous substances
	The recommended method of disposal of the substance/ preparation:	Spilled product let absorp in inert absorbent material and pass it on to a person who is in charge of its removal. The product cannot be removed together with local or other waste. Do not wash away into sewers.
	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). Possible slight residuals of hydrochinone in the empty, rinsed container, transform into harmless chinone form. (oxidation process)
	Waste legislation	Directive No. 2008/98/ES

SECTION	Transport information
14	

 $Land\ transport\ (road\ /\ rail)\ \ ADR/RID\ ,\ Maritime\ transport\ IMDG,\ Air\ transport\ ICAO-TI\ and\ IATA-DGR:$ 

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

14.1	UN number	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	Transport in bulk according to Annex II of Marpol and the IBC Code	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, autorisation, restriction chemicals (REACH) Regulation (EC) No 2015/830, Commission Regulation (EU) 2015/830 of 28 May 2015 amending 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 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)
	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 'n made.

16 Other information	
Abbreviations, symbols	
Eye Irrit. 2	Serious eye irritation (Category 2)
Skin Irrit.2	Skin Irritation (Category 2)
Skin Corr. 1A	Skin caustic (burns) (Cat. 1A)

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

NPK-P, PEL: Hygienic limits of chemical substances for working environment (the Czech Republic)

Materials used for the processing of safety data sheet	
Information provided by the producter Material Safety Data Sheets (MSDS) for chemical substances	
Classification (according to Regulation No 1272/2008 – CLP): calculation method	
H-phrases:	
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye 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 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:

## Revision:

version 5.0 – new format MSDS (Regulation 2015/830)