

Material Safety Data Sheet

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

Date of revision: 03/26/2019

Version No: 3.2

Replaced version No: 3.1

SECTION 1	Identification of the substance/mixture and of the company/undertaking			
1.1	Product identifier	FOMA UNIVERSAL DEVELOPER, small part		
	Other name or labelling of product:	-		
1.2	Relevant identified uses of the substance or mixture and uses advised against			
	Two-component powdery positive-working developer intended fir processing of black and whe photographic papers			
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 (according to Regulation No 1272/2008, 790/2009 – CLP)		
	Carc.2;H351		
	Muta.2;H341		
	AcuteTox.4;H302		
	Eye Dam.1;H318		
	Skin Sens.2;H317		
	Aquatic Acute1;H400		
	Aquatic Chronic 2;H411		
	The most important adverse physicochemical, human health and environmental effects:		
	Suspected of causing cancer and genetic defects. Harmful if swallowed, strongly damaging to eyes.		
	May cause sensitization by skin contact. Very dangerous for the environment with long lasting		
	effects. Contact with acids liberates toxic sulphur dioxide.		

2.2	Label elements (according to Regulation No 1272/2008/EC, 790/2009/EC - CLP)	
hazard pictogram		
signal word		Danger

hazard	H351	Suspected of causing cancer
statement(s) (H-,	H341	Suspected of causing genetic defects
phrases)	H302	Harmful if swallowed
. ,	H318	Causes serious eye damage
	H317	May cause an allergic skin reaction
	H410	Very toxic to aquatic life with long lasting effects.
	EUH031	Contact with acids liberates toxic gas.
precautionary	P102	Keep out of reach of children
statement	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
(P- phrases)	P262	Do not get in eyes, on skin, or on clothing
	P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove
		contact lenses if present and easy to do. Continue rinsing
	P273	Avoid release to the environment
	P501	Dispose of contents/container to collecting place for dangerous waste in
		accordance with national regulations.
		Contains: Hydroquinone, Phenidon, Sodium pyrosulfite

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

SECTION 3		Composi	Composition/information on ingredients				
3.2 Mixtur		lixtures	es				
Folder name	Registratio number	n Index number	CAS number	ES number	Content %	Classification	
Sodium pyrosulfite	01- 211953132 -45-0000	016-063- 00-2	7681-57-4	231-673-0	< 80	Acute Tox.4;H302 Eye Dam.1;H318	
Hydroquinone	01- 211952401 -51-xxxx	16 604-005- 00-4	123-31-9	204-617-8	< 24	Carc.2;H351 Muta.2;H341 AcuteTox.4;H302 EyeDam.1;H318 Skin Sens.1;H317 Aquatic Acute1; H400, M(acute)=10 Aquatic Chronic1;H410	
Phenidon A (1-fenyl-3- pyrazolidon	Not available	606-022- 00-2	92-43-3	202-155-1	< 2	AcuteTox.4;H302 Aquatic Chronic2; H411	

(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 (about 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.
	Inappropriate extinguishing media: N.a.
5.2	Special hazards arising from the substance or mixture When burning or contact with acids liberates sulphur dioxide
	when burning or contact with acids liberates sulphur dioxide
5.3	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
	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 labelled 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 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. 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 equipment 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. 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	Exposure controls,	personal protection				
8.1	Control parameters					
-	International limit values for chemical agents (Occupational exposure limits, OELs):					
	Hydroquinone	Limit value - Eight hours		Limit value - Short tern	n	
		ppm	mg/m³	ppm	mg/m³	
	Australia		2			
	Austria		2 inhalable aerosol		4 inhalable aerosol	
	Belgium		2			
	Canada - Ontario		1			
	Canada - Québec		2			
	Denmark		2		2	
	Finland		0,5		2 (1)	
	France		2			
	Ireland					
	People's Republic of		1		2 (1)	
	China				= ()	
	Poland		1		2	
	Romania		1		2 (1)	
	Singapore		2			
	South Korea		2			
	Spain		2			
	Sweden		0,5		1,5 (1)	
	Switzerland		2 inhalable aerosol		2 inhalable aerosol	
	USA - NIOSH				2 (1)	
	USA - OSHA		2		= ()	
	United Kingdom					
	ernieu rungueni	Remarks				
	Finland	(1) 15 minutes average va	lue			
	People's Republic of China	(1) 15 minutes average va				
	Romania	(1) 15 minutes average va	lue			
	Spain	sen				
	Sweden	(1) 15 minutes average va	lue			
	USA - NIOSH	(1) Ceiling limit value (15				

	Disodium disulphite				
	DNELs				
		Workers		Consumers	
	Route of exposure	Chronic effects syste	mic	Chronic effects systemic	
	Oral	Not available		8.60 mg/kg bw/day	
	Inhalation	225 mg/m ³		66 mg/m ³	
	PNECs				
	Environmental protection target		PNEC		
	Fresh water		1 mg/L		
	Marine water		0.1 mg/L		
	Microorganisms in sewage treat	nent	75.4 mg/L		
8.2	Exposure controls				
	Individual protection measures, incl. protective equipment				
	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 of poluted clothes if needed.				
	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 glassesor protective face				
	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	White powder	
	Odour	Moderate, nonspecific	
	рН	about 10,5 (solution after mixing small and big part)	
	Melting point/freezing point	N.a.	
	Initial boiling point and boiling range	N.a.	
Flash point Fireproof		Fireproof	
	Evaporation rate	N.a.	
	Flammability	Incombustible	
	Upper/lower flammability or explosive limits	Irrelevant	
	Vapour pressure	Unknown	
	Vapour density	Unknown	
	Oxidising properties	No	
	Relative density	N.a.	
Solubility – water about 200 g/		about 200 g/l	
	Partition coefficient: n-octanol/water	Unknown	

	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	
	N.a.	
10.4	Conditions to avoid	
	High temperature	
10.5	Incompatible materials	
	Strong mineral acids	
10.6	Hazardous Decomposition Products	
	Maybe it emits sulphur dioxide at high temperature or contact with acids	

SECTION	Foxicological information		
11.1 Int	formation on toxicologi	cal effects	
Acute toxicity		ATE _{mix} (oral)= 832 mg/kg(calculation) - Harmful is swallowed. Hydroquinone LD50/ oral/ rat: > 375 mg/kg LD50/ dermal/ rabbit: > 2000 mg/kg 1 phenyl-3 pyrazolidone (Phenidon A) LD50/oral/ rat: 475 mg/kg bw *LD50/dermal/rat: 2000 mg/kg bw *source : substance Brief Profile: http://echa.europa.eu/ Disodium disulphite LD50/oral/rat: 1540 mg/kg bw LD50/oral/rat: 2000 mg/kg bw	
Skin corrosio	n/irritation	LC50/inhal/rat/4 hr: > 5,5 mg/L air Based on available data, the criteria for this classification are not match up	
	damage/eye irritation	· · · · · ·	
Respiratory o	or skin sensitisation	May cause an allergic skin reaction	
Germ cell mutagenicity Suspected of causing genetic defects		Suspected of causing genetic defects	

Carcinogenicity	Suspected of causing cancer			
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 —	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			
Likely routes of exposure and sympton	oms related to the physical, chemical and toxicological characteristics:			
Toxicity oral. (ingestion / swallowing)	Toxicity oral. (ingestion / swallowing):			
Ingestion may cause nausea.				
Toxicity inhal. (inhalation):				
The product is not dangerous. Sensitive individuals may irritate respiratory system				
Toxicity dermal.				
May cause irritation skin				
Eye Contact:				
Causes serious eye damage				
Immediate, delayed and chronic effects of short and long term exposure:				
May cause cancer and genetic defects through prolonged or repeated exposure				

SECTION	Ecological information	
12	, , , , , , , , , , , , , , , , , , ,	
12.1	Toxicity	
	Mixture is very toxic for aquatic life with long lasting effects.	
	Hydroquinone LC50(fish)/96hr: 0.638 mg/L EC50(daphnia)/48hr: 0.134 mg/L EC50(water algae)/72hr: 0.33 mg/L NOEC(daphnia) /21d:0.0057mg/L NOEC(algae)/72 hr.: NOEC(algae)/72 hr.: 0.019 mg/L	
	1-phenyl-3 pyrazolidone-Fenidon A LC50/fish/96 hr.: 1-10 mg/L EC50/invertebrates(Daphnia magna)/96hr = 10 mg/L	
	Disodium disulphite LC50/freshwater fish (Onchorhynchus mykiss)/96 hr:177.8mg/L EC50/freshwater invertebrates (Daphnia magna)/48 hr: 89 mg/L EC50/freshwater algae (Scenedesmus subspicatus)/72 hr : 43.8 mg/L EC50/bacterie (Pseudomonas putida)/17 hr: 56 mg/L NOEC/freshwater invertebrates (Daphnia magna)/21 d: >10 mg/L	
12.2	Persistence and degradability	
	Hydroquinone is considered to be biologically degradable (test OECD 301C).	
12.3	Bioaccumulative potential,	
	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, lightly risking water

SECTION	Disposal considerations		
13			
13.1	1 Waste treatment methods		
	Code and type of waste	09 01 01* – aqueous developer solutions	
		15 01 10 * - packaging containing residues of hazardous substances	
disposal of the substance/ Gather into a suitable lat preparation: disposal. Spill site with with inert absorbent mater with inert absorbent materials of the solution contains			
	The recommended method of disposal of contaminated product packaging:	Emptied containers pass to the authorized person	
	Waste legislation Directive No. 2008/98/ES		

SECTION	Transport information
14	

Land transport ADR/RID (cross- border), Maritime transport IMDG, Air transport ICAO-TI and IATA-DGR:

14.1	UN number	3077
14.2	UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,N.O.S. (HYDROQUINONE)
14.3	Transport hazard class(es)	9
14.4	Packing group	Ш
	Labels	9 · 🕪 🏵
14.5	Environmental hazard	Product contains environmentally hazardous substances: (Hydroquinone,). Mixture is environmentally hazardous according to the criteria of the UN Model Regulations- see to section 12
	Marine pollutant	Yes
14.6	Special precautions for user	See to section 8- Avoid release to the environment

14.7	Transport in bulk according to Annex II of Marpol and the IBC Code		Not expected
Special provisions, remarks:		ADR: The product is carried in single or combination packaging containing a net quantity per single or inner packaging of 5 kg or less and is not subject to any other provisions of ADR provided packaging meet the general provisions of 4.1.1.1., 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (according to chapter 3.3 ADR, special provisions 375)	
		containing a net quantity and is not subject to any marine pollutants provide of 4.1.1.1, 4.1.1.2 and 4.1 paragraphs 2.10.2.7 and 2 ICAO/IATA: The product packaging containing a nek g or less and is not subje Dangerous Goods Regula	ckaged in single or combination packaging per single or inner packaging of 5 kg or less other provisions of IMDG Code relevant to d the packaging meet the general provisions 1.1.4 to 4.1.1.8. (according to Chapter 2.10, 2.10.2.3) is transported in single or combination et quantity per single or inner packaging of 5 ect to any other provisions of the IATA ations provided the packaging used defined part 4.4, Special provisions A197)

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 (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 not made.	

SECTION Other information 16	
Abbreviations, symbols	
Carc.2	Carcinogenicity (Category 2)
Muta.2	Mutagenicity (Category 2)
Eye Dam.1	Serious eye damage (Category 1)
Skin Sens.1	Skin sensibilisation (Category 1)
Acute Tox.4	Hazardous to the aquatic environment, acute (Category 4)
Aquatic Acute 1	Hazardous to the aquatic environment, acute (Category 1)
Aquatic Chronic1	Hazardous to the aquatic environment, chronic (Category 1)

Aquatic Chronic2	Hazardous to the aquatic environment, chronic (Category 2)
CLP : Regulation (EC) č.1272/2008	
REACH: Registration, Evaluation, Auth	orisation and Restriction of Chemicals
SVHC: Substance of very hight concern	
PBT: Persistent, bioaccumulative and t	
vPvB :(very) Persistent, (very) Bioaccu	
	national Transport of Dangerous Goods by Rail
ICAO: International Civil Aviation Organ	
	the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for	5
IATA: International Air Transport Assoc	
EINECS: European Inventory of Existin	
CAS: Chemical Abstracts Service (divis	sion of the American Chemical Society)
DNEL: Derived No-Effect Level	
PNEC: Predicted No-Effect Concentrat	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent EC50: Median Effective Concentration	
LOAEL: Lowest observed adverse effe	ct lovel
NOAEL: No Observed Adverse Effect L	
NOEC: No Observed Effect Concentrat	
M: multiplier factor	
N.a not available	
bw: body weight	

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 <u>http://echa.europa.eu/</u>

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

H-phrases:

Suspected of causing cancer
Suspected of causing genetic defects
Harmful if swallowed
Causes serious eye damage
May cause an allergic skin reaction
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects.
Toxic to aquatic life with long lasting effects
Contact with acids liberates toxic gas.

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	+359 2 9154 409
-	Treatment and Emergency Medicine 'N.I.Pirigov', Sofia	
Croatia	Poison Information Center/	+385 1 2348 342
	Centar za kontrolu otrovanja	
Denmark	Poison Center Hotline	+45 82 12 12 12
Estonia	Poisoning centre Hotline	+372 16662
	Mürgistusinfo	
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)	+36 80 201 199
i langan y	Információszolgáltatás akut mérgezés eseén)	
Italy	Poisons Center CAV-Centro Antiveleni Roma	+39 06 68593726, +39 06 3054343,
		+39 06 49978000
Latvia	Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu	+371 67042473
	informācijas centrs	
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	+031 (0) 30 274 8888
	Informatie centrum, NVIC)	
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 ilstitute for Public Health (Centrum National de Informare	+40 21 318 36 06
	Toxicologica)	
Slovakia	National Toxicological Information Centre (Národné toxikologické	+421 2 54 774 166
	informačné centrum	
Spain	Toxicological Information Service (Servicio de Información	+34 91 562 04 20
	toxicologica)	
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 3.2 – changed sections 1.4, 2.2, 8.1, 11.1, 12.1, 16 (added contact information- EU Poison Information Centres