

# **Material Safety Data Sheet**

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

Date of revision: 09/21/2022 Version No: 9.0

Replaced version No: 8.1

SECTION 1	Identification of the substance/mixture a	and of the company/undertaking					
1.1	Product identifier	FOMAtoner INDIGO Díl-Part B					
	Other name or labelling of product:	Not specified					
	#UFI	7910-D0VE-E00K-RYH2					
1.2	Relevant identified uses of the substance or mixture and uses advised against						
	Concentrate Hardening Rapid Fixer for processing of industrial X-ray films						
1.3	Details of the supplier of the safety data sheet						
1.3	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) Eye Irrit2;H319  Classification and full text H-phrases - see to section 16			
		t adverse physicochemical, human health and environmental effects: the eyes can cause irritation.		
2.2	Label elements (according to Regulation No 1272/2008/EC- CLP)			
hazard pictogram		<b>(1)</b>		
signal word		Warning		
hazard H319 statement(s) (H- , EUH- phrases)		Causes serious eye irritation		

precautionary	P102	Keep out of reach of children		
statement	ment P280 Wear protective gloves.			
(P- phrases)	P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing			
P337+P313 If e		If eye irritation persists: Get medical advice/ attention.		
P501 Disp		Dispose of contents/container to collecting place for dangerous waste in accordance with national regulations.		
2.3	Other hazards			
	The substance does no	not belong to the category of PBT, vPvB and are not included in the list drawr		
	up in accordance with A	n Article 59 (1) of REACH		

SECTION 3	Composition	Composition/information on ingredients #Mixtures					
3.2	#Mixtures						
Folder name	Identification number		Content % mass in the solution	Classification	SCL, M, ATE, note		
Oxalic acid	CAS number		< 1,5	Acute Tox.4;H312 Acute Tox.4;H302 EyeDam1;H318	For substance there are Union workplace exposure limits – see to 8.1		
Ammonium iron bis(sulphate)	CAS number ES number Index number Registration number	7783-83-7 233-382-4 Not available Not available	< 1,5	Eye Irrit.2;H319 Skin Irrit.2;H315	Not available		

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. <b>Do not induce vomiting</b> . 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: Not availableN.a.
<b>F</b> 2	Special hazards arising from the substance or mixture
5.2	#Not known - non-flammable water solution. In the event of a fire, after water has evaporated, dangerous decomposition products can be formed - carbon oxides, soot, ammonia, sulfur dioxide
5.3	Advice for firefighters
	# Due to the volume of substances in the mixture and possible decomposition products, see 5.2 and
	10.6, the use of special breathing equipment, anti-chemical suit is not expected.

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 at least 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 prepare 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):							
	Oxalic acid		Limit value - Eight hours			Limit value - Short term		
	Canada - Ontario European Union		ppm mg/m³ 1 1		ppm	ppm	mg/m³ 2 (1)	
	Canada - Ont	ario	Remarks (1) 15 minutes a	verage value				
	Ammonium available	iron bis(s	sulphate) - Intern	national limit values for	chem	ical agents (Occupation	nal exposure limits, OELs) - not	
	Laying dow	n limit v	alues of biolog	ical exposure tests:	not	available		
	Oxalic acid DNELs							
	Route of	Workers	fect local	Chronic effects system	ic	Consumers Acute effect local	Chronic effects systemic	
	exposure			Chilonic enects systemic		Acute effect local	-	
	Inhalation	Not avai		4.03 mg/m <sup>3</sup>		0.35 mg/cm <sup>2</sup> Not available	1.14 mg/m³	
	Dermal PNECs	0.69 mg	/CIII-	2.29 mg/kg bw/day		INOL AVAIIADIE	1.14 mg/kg bw/day	
	Environmental protection target PNEC							
	Fresh water					2 mg/L		
	Marine water 0.01622 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 irrigof the eyes, wash your hands or contaminated parts of the skin.					ater for the irrigation needs		
	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: It is not needed for normal use							
	<b>#Hand protection</b> : If contact with hand is pissible, there is recommended using of work glowes (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)							
	Skin protection: not required, recommended long- sleeved protective work clothing							
	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	yellow-green liquid	
	Odour	Nonspecific	
	pH (20 ° C)	5.0-5.4	

	Melting point/freezing point	< 0 ° C
	Initial boiling point and boiling range	> 100 ° C
	Flash point	Non-flammable - aqueous solution
	Flammability	Inflammable
	Upper/lower flammability or explosive limits	Irrelevant- flammable liquid
	Vapour pressure	<20 mbar
	Relative vapour density	Information is not available.
	Absolute density	About 1.01 g/cm <sup>3</sup>
	Solubility – water	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 (Ammonium iron bis(sulphate) - decomposition 39-41 ° 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
10.4	Conditions to avoid
	#Under normal conditions the product is stable. Protect from long time effect of sunshine and heat - may causes destructions the mixture.
10.5	Incompatible materials
	Not specified
10.6	Hazardous Decomposition Products
	#They do not occur under normal conditions. In case of fire, carbon dioxide and carbon monoxide, ammonia, sulfur dioxide are produced - see section 5.

SECTION 11	Toxicological information
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11.1 #Information on hazard	classes as defined in Regulation (EC) No 1272/2008
	ATE <sub>mix</sub> (oral)=25000 mg/kg (calculation)
Acute toxicity	ATE <sub>mix</sub> (dermal)=1333333 mg/kg (calculation)
	Based on available data, the criteria for this classification are not match up
	Oxalic acid (anhydrous) LD50/oral/ rat: 375 mg/kg bw LD50/dermal/ rabbit.: 20 000mg/kg bw
Skin corrosion/irritation	Based on available data, the criteria for this classification are not match up
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 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 —	Based on available data, the criteria for this classification are not match up
single exposure	There isn't precondition for organ toxicity through repeated 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

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

#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):

In normal use according to the instructions for use is not expected. Mucous membrane irritation, cough dyspnoea and may be during strong heating.

Toxicity dermal.

#May cause degreasing and temporary irritation through prolonged or repeated exposure

Eye Contact:

Causes serious eye irritation in case of contact with eyes

Immediate, delayed and chronic effects of short and long term exposure:Not available. The effects through prolonged or repeated exposure- see above

11.2	Information on other hazards	
	Not specified	

SECTION	Ecological information	
12		
12.1	Toxicity	
	Information for mixture isn't available. The product (solution) is not classified as toxic. Toxic effect aren't expected due to mixture composition	

	Oxalic acid (anhydrous) LC50/fish( Leuciscus idus)/96 hr:160 mg/L EC50/invertebrates( Daphnia magna)/48 hr: 162.2 mg/L	
12.2	Persistence and degradability	
	Information for mixture isn't available. Oxalic acid: well biodegradation	
12.3	Bioaccumulative potential	
	Information for mixture isn't available. Substances haven't bioaccumulative 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 01* – aqueous developer solutions 20 01 17* - Photo chemicals 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.
	# 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 HP4- "Irritatint-skin irritation and eye damage"
	The recommended method of disposal of contaminated product packaging:	3, 11
	Waste legislation	Directive No. 2008/98/ES

SECTION Transport information 14	
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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).

1 01 1110 114	Ter the transport of the predact is not classified as a dangered triing (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	Not
	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 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 not made.

SECTION Other information 16	Other information	
Abbreviations, symbols		
Acute Tox.4	Hazardous to the aquatic environment, acute (Category 4)	
Skin Irrit.2	Skin irritation (Cat. 2)	
Eye Irrit.2	Serious eye irritation (Cat. 2)	
EyeDam.1	Serious eye damage ( category1)	
CLP : Regulation (EC) č.1272/2008		

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

SVHC: Substance of very high 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

N.a.: not available bw: body weight dw: dry 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:

H312	Harmful in contact with skin.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation
H315	Causes skin 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.

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

Country	Poison Centre	Tel number 24hour every day/ other time
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 ilstitute 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 9.0 – added UFI number; in the format safe. sheet according to Commission Regulation (EU) No. 2020/878 and a complete revision of the text and data. Changes in the text are marked with a symbol #.