



## Material Safety Data Sheet

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

Date of revision : 01/23/2015

Version No:5.1  
Replaced version No: 5.0

<b>SECTION 1</b>	Identification of the substance/mixture and of the company/undertaking	
1.1	Product identifier	<b>FOMADON EXCEL (W27), small part</b>
	Other name or labeling of product:	
1.2	Relevant identified uses of the substance or mixture and uses advised against	
	Two-piece powder negative developer for processing of black and white 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)

<b>SECTION 2</b>	Hazards identification	
2.1	<b>Classification (according to Regulation No 1272/2008 – CLP)</b>	
	Carc.2;H351 Repr. 1B;H360FD Acute Tox.4;H302 Eye Irrit.2;H319 SkinSens.2;H317	
	Classification (according to Directive No 1999/45/ES – (DPD)	
	Carc.Cat.3;R40 Repr.Cat.2;R60,R61 Xn;R22 Xi;R36,R43	
	<u>The most important adverse physicochemical, human health and environmental effects:</u> Suspected of causing cancer .May damage fertility. May damage the unborn child. Harmful if swallowed. Causes serious eye irritation. May cause an allergic skin reaction.	

2.2	Label elements (according to Regulation No 1272/2008/EC– CLP)	
<i>Identification of product</i>		<b>FOMADON EXCEL (W27), small part</b>
<i>hazard pictogram</i>		
<i>signal word</i>		Danger
<i>hazard statement(s) (H-, phrases)</i>	H351 H360FD H302 H319 H317	Suspected of causing cancer May damage fertility. May damage the unborn child. Harmful if swallowed. Causes serious eye irritation May cause an allergic skin reaction
<i>precautionary statement (P- phrases)</i>	P102 P262 P305+P351+P338  P308+P313 P273 P501	Keep out of reach of children Do not get in eyes, on skin, or on clothing. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing IF exposed or concerned: Get medical advice/attention. Avoid release to the environment Dispose of contents/container to collecting place for dangerous waste in accordance with national regulations.
		Contain: Sodium tetraborate decahydrate, Trisodium nitrilotriacetate, Dimezone S
		FOMA BOHEMIA spol. s r.o., J. Krušinky 1737/6, 500 02 Hradec Králové tel: 495 733 111

2.3	Other hazards
	Sodium tetraborate decahydrate belongs to the category 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
Sodium tetraborate decahydrate	01-2119490790-32-0000	005-011-01-1	1303-96-4	215-540-4	< 35	Eye Irrit.2;H319 Repr 1B; H360FD Xi;R36 Repr. Cat.2; R60-61
Trisodium nitrilotriacetate (Na3NTA) (Dissolvine A 92)	01-2119519239-36-0002	607-620-00-6	5064-31-3	225-768-6	< 35	AcuteTox4;H302 Eye Irrit.2;H319 Carc.2;H351 Xn;R22 Xi;R36 Carc.Cat.3;R40
4-hydroxymethyl-4-methyl-1-phenyl –3-pyrazolidinone (Dimezone S)	Not available	Not available	13047-13-7	235-920-3	< 15	AcuteTox4;H302 SkinSens2;H317 Aquatic Chronic2;H411 Xn;R22 Xi;R43 N;R51/53

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

<b>SECTION 4</b>	<b>First aid measures</b>
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.

<b>SECTION 5</b>	<b>Firefighting measures</b>
5.1	Extinguishing media
	The product (liquid solution) 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 sulphur dioxide
5.3	Advice for firefighters: Breathing apparatus, workwear

<b>SECTION 6</b>	<b>Accidental release measures</b>
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

<b>SECTION 7</b>	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

<b>SECTION 8</b>	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) Substance is not listed in Notice. No.432/2003 Coll., Laying down limit values of biological exposure tests: not available																					
	<table border="0"> <thead> <tr> <th>DNEL : (<i>Sodium tetraborate</i>)</th> <th>Workers</th> <th>General</th> </tr> </thead> <tbody> <tr> <td>Long-Term – derm., systemic. effect</td> <td>316.4 mg/kg bw/day</td> <td>159.5 mg/kg bw/day</td> </tr> <tr> <td>Long-Term – inhal., systemic. effect</td> <td>6.7 mg/m<sup>3</sup></td> <td>3.4 mg/m<sup>3</sup></td> </tr> <tr> <td>Long-Term – inhal., local. effect</td> <td>1 mg/m<sup>3</sup></td> <td>0,5 mg/m<sup>3</sup></td> </tr> <tr> <td>Long-Term – oral., systemic. effect</td> <td></td> <td>0,79 mk/kg bw/day</td> </tr> <tr> <td>Short-Term- oral, systemic. effect</td> <td></td> <td>0,79 mk/kg bw/day</td> </tr> <tr> <td>Short-Term – inhal., local. effect</td> <td>11.7 mg/m<sup>3</sup></td> <td>11.7 mg/m<sup>3</sup></td> </tr> </tbody> </table>	DNEL : ( <i>Sodium tetraborate</i> )	Workers	General	Long-Term – derm., systemic. effect	316.4 mg/kg bw/day	159.5 mg/kg bw/day	Long-Term – inhal., systemic. effect	6.7 mg/m <sup>3</sup>	3.4 mg/m <sup>3</sup>	Long-Term – inhal., local. effect	1 mg/m <sup>3</sup>	0,5 mg/m <sup>3</sup>	Long-Term – oral., systemic. effect		0,79 mk/kg bw/day	Short-Term- oral, systemic. effect		0,79 mk/kg bw/day	Short-Term – inhal., local. effect	11.7 mg/m <sup>3</sup>	11.7 mg/m <sup>3</sup>
DNEL : ( <i>Sodium tetraborate</i> )	Workers	General																				
Long-Term – derm., systemic. effect	316.4 mg/kg bw/day	159.5 mg/kg bw/day																				
Long-Term – inhal., systemic. effect	6.7 mg/m <sup>3</sup>	3.4 mg/m <sup>3</sup>																				
Long-Term – inhal., local. effect	1 mg/m <sup>3</sup>	0,5 mg/m <sup>3</sup>																				
Long-Term – oral., systemic. effect		0,79 mk/kg bw/day																				
Short-Term- oral, systemic. effect		0,79 mk/kg bw/day																				
Short-Term – inhal., local. effect	11.7 mg/m <sup>3</sup>	11.7 mg/m <sup>3</sup>																				
	<table border="0"> <thead> <tr> <th>PNEC : (<i>Sodium tetraborate</i>)</th> <th></th> </tr> </thead> <tbody> <tr> <td>Freshwater</td> <td>1.35mg/l</td> </tr> <tr> <td>Seawater</td> <td>1.35 mg/l</td> </tr> <tr> <td>Soil</td> <td>5.4 ug/kg sediment dw</td> </tr> <tr> <td>Mikroorganismen in Sewasge Treatment Plant</td> <td>1.75mg/l</td> </tr> </tbody> </table>	PNEC : ( <i>Sodium tetraborate</i> )		Freshwater	1.35mg/l	Seawater	1.35 mg/l	Soil	5.4 ug/kg sediment dw	Mikroorganismen in Sewasge Treatment Plant	1.75mg/l											
PNEC : ( <i>Sodium tetraborate</i> )																						
Freshwater	1.35mg/l																					
Seawater	1.35 mg/l																					
Soil	5.4 ug/kg sediment dw																					
Mikroorganismen in Sewasge Treatment Plant	1.75mg/l																					
8.2	Exposure controls																					
	Individual protection measures, incl. protective equipment																					

	<p>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.</p> <p>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.</p>
	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) 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	Moderate, nonspecific
	pH	cca 8.2 (12 % solution after mixing small and big part)
	Melting point/freezing point	N.a.
	Initial boiling point and boiling range	Unknown
	Flash point	Fireproof
	Evaporation rate	N.a.
	Flammability	Incombustible
	Upper/lower flammability or explosive limits	Irrelevant
	Vapour pressure	N.a.
	Vapour density	Unknown
	Oxidising properties	No
	Relative density	N.a.
	Solubility – water	cca 200g/l
	Partition coefficient: n-octanol/water	No
	Auto-ignition temperature	Irrelevant
	Decomposition temperature	N.a.
	Viscosity;	N.a.
	Explosive properties	No
9.2	Other information	
	Fat solubility	No
	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
	N.a.
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	Harmful if swallowed	
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	May cause an allergic skin reaction	
Germ cell mutagenicity	Based on available data, the criteria for this classification are not match up	
Carcinogenicity	Suspected of causing cancer	
Reproductive toxicity	May damage fertility. May damage the sborn child.	
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	
<u>Likely routes of exposure and symptoms related to the physical, chemical and toxicological characteristics:</u>		
Toxicity oral. (ingestion / swallowing):		
Harmful if swallowed. Ingestion may cause irritation or burns to the digestive tract. It causes nausea.		
Toxicity inhal. (inhalation):		
The product (solution) is not dangerous. In sensitive people is possible respiratory irritation.		
Toxicity dermal.		
May cause an allergic skin reaction		
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
	Not toxic
12.2	Persistence and degradability
	Mostly inorganic substances- Irrelevant
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 01* – aqueous developer solutions 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 authorized 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, 56 <sup>th</sup> Edition
15.2	Chemical safety assessment
	The chemical safety assessment for the product was´n made.

SECTION 16	
Abbreviations, symbols	
Carc.2	Carcinogenity (Category 2)
Repr.1B	Reproductive toxicity ( Category 1B)
Skin Sens.2	Skin sensibilisation (Category 2)
Acute Tox.4	Hazardous to the aquatic environment, acute (Category 4)
Eye Irrit.2	Serious eye irritation (Cat. 2)
Aquatic Chronic 2	Hazardous to the aquatic environment ( Category 2)



Carc. cat.3	Carcinogenity (Category 3)
Repr cat.2	Reproductive toxicity ( Category 2)
Xn	harmfull
Xi	irritation
N	hazardous to the aquatic environment
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 high concerns
DNEL	Derivated No-Effect Level
PNEC	Prediction No-Effect Concentration

<b>Materials used for the processing of safety data sheet</b>	
Information provided by the producer Material Safety Data Sheets (MSDS) for chemical substances	
R, H-phrases :	
H351	Suspected of causing cancer
H360FD	May damage fertility. May damage the unborn child.
H302	Harmful if swallowed
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H411	Toxic to aquatic life with long lasting effects.
R40	Limited evidence of a carcinogenic effect
R60	May impair fertility
R61	May cause harm to the unborn child
R36	Causes serious eye irritation
R22	Harmful if swallowed
R43	May cause sensitisation by skin contact
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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 producer, importer or retailer.	

Revised safety data sheet:

version 5.1 – changes in section 1.3 and 2.2– address of supplier