



# MATERIAL SAFETY DATA SHEET

Date of card preparation: 30/11/2010

Date of card update: 18/06/2013

## *SECTION 1: Identification of the substance/mixture and of the company/undertaking*

### 1.1. Product identifier

**Mythic 18-22 FLUSH - CLEANER (HM18-011-025)**

For periodic and routine cleaning of the measuring system of Mythic haematology analysers.

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Laboratory reagents. For professional use only.**

### 1.3. Details of the supplier of the safety data sheet

#### **Manufacturer:**

**Orphée S.A.  
19 chemin du Champ-des-Filles  
1228 Plan-les-Ouates**

phone/fax. (0-81) 749 44 34, 749 44 00

between: 7 am and 3 pm

**e-mail:** bkucharski@orphee-medical.com

### 1.4. Emergency telephone number



Emergency telephone number: 112

## *SECTION 2: Hazards identification*

### 2.1. Classification of the substance or mixture

**Irritant. Dangerous for the environment.  
Irritating to eyes. Very toxic to aquatic organisms.**

## 2.2. Label elements

<b>Marking:</b>	
 <b>Xi – Irritant</b>	<b>Risk phrases (R):</b> <b>R 36</b> – Irritating to eyes. <b>R 50</b> – Very toxic to aquatic organisms.  <b>Safety phrases (S):</b> <b>S 26-61</b> – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Avoid release to the environment. Refer to special instructions/safety data sheet
 <b>N - Dangerous for the environment</b>	

## 2.3. Other hazards

This mixture do not meet the criteria for PBT and vPvB.
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## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable.
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### 3.2. Mixtures

<b>Sodium hypochlorite</b> <span style="float: right;">Contains: &lt; 4% *</span> CAS number: 7681-52-9 EC number: 231-668-3 Index number 017-011-00-1 Registration number: 01-2119488154-34-0000 <b>Classification according to EU Directives 67/548/EEC or 1999/45/EC:</b> C; R34 N; R50 R31 <b>Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]:</b> Skin Corr. 1B, H314 Aquatic Acute 1, H400 EUH031
* - % active chlorine
<b>Sodium hydroxide</b> <span style="float: right;">Contains: &lt; 0.3%</span> CAS number: 1310-73-2 EC number: 215-185-5 Index number 011-002-00-6 Registration number: 01-2119457892-27-0000 <b>Classification according to EU Directives 67/548/EEC or 1999/45/EC:</b> C; R 35 <b>Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]:</b> Skin Corr. 1A, H314 Eye Dam.1, H318

The full text of R and H phrases is given in section 16

## ***SECTION 4: First aid measures***

### **4.1. Description of first aid measures**

**After exposure by respiratory passages:** fresh air. Consult doctor in case of symptoms  
**After skin contamination:** wash off with plenty of water. Take off the contaminated clothing.  
**After contamination of eyes:** rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call in ophthalmologist.  
**After consumption:** give the sufferer a large amount of water to drink.  
Avoid vomiting. (risk of perforation!)  
If the sufferer feels unwell, consult a doctor.

### **4.2. Most important symptoms and effects, both acute and delayed**

No data available.

### **4.3. Indication of any immediate medical attention and special treatment needed**

No data available.

## ***SECTION 5: Firefighting measures***

### **5.1. Extinguishing media**

The mixture is inflammable.  
In case of fire use extinguishing media suitable for materials stored in immediate vicinity. Water, CO<sub>2</sub>, dry powder can be used as the extinguish medium.  
No data about do not recommended extinguishing media.

### **5.2. Special hazards arising from the substance or mixture**

Ambient fire may liberate hazardous vapours. The following may develop in event of fire: chlorine, hydrochloric acid.

### **5.3. Advice for firefighters**

The rescuers must be equipped with protective clothing and respiratory tract isolating equipment, irrespective of ambient air (in the case of large fire).

## ***SECTION 6: Accidental release measures***

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### ***6.1.1. For non-emergency personnel***

Avoid contamination with the preparation.  
Notify the neighbourhood of the breakdown.  
Do not inhale vapours/ aerosols.  
Secure the flow of fresh air into closed rooms.  
Avoid contact of the mixture with skin and eyes.  
Remove contaminated clothing and wash before reuse.

#### ***6.1.2. For emergency responders***

Wear protective clothing and rubber gloves.

## 6.2. Environmental precautions

Dilute with plenty of water. Avoid entering the product into drains, surface water and groundwater, reservoirs and waterways.

## 6.3. Methods and material for containment and cleaning up

Collect small quantities with the use of an absorbing agent (sand, diatomite, acid binders, universal binders, sawdust), rinse with large amount of water if necessary. Provide material collected for recycling.

## 6.4. Reference to other sections

Use the control measures and personal protective equipment described in section 8 of this card. The released material to follow the rules described in section 13 of this MSDS - Disposal consideration.

# SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

While working with the preparation, one should use appropriate means of personal protection (see pt. 8). Avoid contact of the preparation with skin and eyes, as well as inhaling its mists. Secure efficient local ventilation.

### Industrial hygiene:

You must not have meals, drink, or smoke tobacco while working with the preparation, except in places designed for that purpose. Wash your hands after work with the substance carefully with soapy water. Apply skin-protective barrier cream.

## 7.2. Conditions for safe storage, including any incompatibilities

In accordance with the norms generally accepted for chemicals in laboratories.  
Store in original manufacturer containers.  
Store in closed containers at temperatures compatible with the information provided on the label.  
Protect against light.  
Protect containers from damage.  
Keep away from food and animal feed.

## 7.3. Specific end use(s)

No data available.

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

Contains substances with the applicable occupational exposure limits in the workplace.

### Data for Sodium hydroxide:

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Austria		2 inhalable aerosol		4 inhalable aerosol
Belgium		2		
Canada - Québec				2 (1)
Denmark		2		2

European Union				
France		2		
Germany (AGS)				
Germany (DFG)				
Hungary		2		2
Italy				
Japan				
Poland		0,5		1
Singapore				2
Spain		2		
Sweden		1		(2)
Switzerland		2 inhalable aerosol		2 inhalable aerosol
The Netherlands				
USA - NIOSH				2 (1)
USA - OSHA		2		
United Kingdom				2
	<b>Remarks</b>			
Canada - Québec	(1) Ceiling value			
Sweden	Inhalable dust			
USA - NIOSH	(1) ceiling limit value (15 min)			

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

No data available.

### 8.2.2. Individual protection measures, such as personal protective equipment

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

#### a) Eye / Face protection:

Avoid direct contact of the product with eyes – required - protective glasses.

#### b) skin protection:

##### - hand protection:

Avoid direct contact of the product with skin, immediately take off clothes soiled with the preparation and wash contaminated skin with soapy water, use personal protective, clothing and gloves:

#### c) Respiratory protection:

Apply in rooms with efficiently working ventilation, avoid inhaling product mists, respiratory tract-protective agents are required when vapours/aerosols are generated.

#### d) Thermal hazards:

Not applicable.

### 8.2.3. Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

a) Appearance :- -The physical state : -Colour:	<i>clear liquid yellow</i>
b) Odour:	<i>characteristic smell of chlorine</i>
c) Odour threshold :	<i>no data available</i>
d) pH:	<i>no data available</i>
e) Melting point/freezing point	<i>no data available</i>
f) Initial boiling point and boiling range	<i>no data available</i>

g) Flash point:	<i>no data available</i>
h) Evaporation rate:	<i>no data available</i>
i) Flammability (solid, gas)	<i>not applicable</i>
j) Upper/lower flammability or explosive limits :	<i>no data available</i>
k) Vapour pressure :	<i>no data available</i>
l) Vapour density :	<i>no data available</i>
m) Relative density:	<i>no data available</i>
n) Solubility(ies)	<i>miscible with water</i>
o) Partition coefficient: n-octanol/water	<i>no data available</i>
p) Auto-ignition temperature	<i>no data available</i>
q) Decomposition temperature:	<i>no data available</i>
r) Viscosity :	<i>no data available</i>
s) Explosive properties:	<i>no data available</i>
t) Oxidising properties :	<i>no data available</i>

## 9.2. Other information

No other relevant information.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is stable in conditions provided by the manufacturer.

### 10.2. Chemical stability

The product is stable when normal handling in accordance with conditions provided by the manufacturer.

### 10.3. Possibility of hazardous reactions

Not known.

### 10.4. Conditions to avoid

Warming (decomposition).

### 10.5. Incompatible materials

Acids, reducing agents.

### 10.6. Hazardous decomposition products

Chlorine, hydrochloric acid.

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

No data for the mixture. Toxicological problems should not be expected if the product were used and applied appropriately. The product should be handled with the care usual when dealing with chemicals.

**a) acute toxicity:**

No data available.

**b) irritation:**

No data available.

**c) corrosivity:**

No data available.

**d) sensitisation:**

No data available.

**e) repeated dose toxicity:**

No data available.

**f) carcinogenicity:**

No data available.

**g) mutagenicity:**

No data available.

**h) toxicity for reproduction:**

No data available.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Quantitative data on the ecological effect of this mixture are not available. The mixture toxicity evaluation is based on evaluation of the toxicity of particular components.

**Data for sodium hypochlorite:**

Fish toxicity (*Oncorhynchus kisutch*) LC<sub>50</sub>: 32 ug/l / 96 h

Toxicity to daphnia (*Daphnia magna*) LC<sub>50</sub>: 32 ug/l / 48 h

Toxicity to crustacea (*Palaemonetes pugio*) LC<sub>50</sub>: 56400 ug/l / 48 h

Ecological problems should not be expected if you use and apply the product appropriately.

**Further ecological data:**

Do not allow for penetration into waters, sewage or soil.

### **12.2. Persistence and degradability**

No data available.

### **12.3. Bioaccumulative potential**

No data available.

### **12.4 Mobility in soil**

No data available.

### **12.5. Results of PBT and vPvB assessment**

No data available.

### **12.6. Other adverse effects**

No data available.

## ***SECTION 13: Disposal considerations***

### **13.1. Waste treatment methods**

***Product:***

Chemical residues, in general, are included into special waste. Disposing of the latter is regulated by appropriate laws and ordinances. We recommend contacting the appropriate authorities, or waste disposal enterprises that will advise you on how to dispose of special waste.

***Packing:***

Remove in accordance with official regulations. Treat contaminated packages in the same way as the substance itself. If the regulations do not provide otherwise, non-contaminated packages can be treated like household waste or forward them to be utilized.

## ***SECTION 14: Transport information***

### **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**

No limits.

### **14.5. Environmental hazards**

Not applicable.

### **14.6. Special precautions for user**

Not applicable.

### **14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable.



## ***SECTION 15: Regulatory information***

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Material Safety Data Sheet was prepared in accordance with:**

The EC Directive Nr 1999/45/EG, the EC Directive 67/548 EEC, Regulation (EC) No 1907/2006 of European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Regulation (EC) No 1272/2008 of the European Parliament and Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

See Polish regulations.

### **15.2. Chemical safety assessment**

Chemical safety assessment has been no carried out for the product.

## ***SECTION 16: Other information***

***Relevant R and H-phrases:***

R 36 – Irritating to eyes.

R 50 – Very toxic to aquatic organisms.

R34- Causes burns.

R31- Contact with acids liberates toxic gas.

R 35 - Causes severe burns.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

H400 - Very toxic to aquatic life.

EUH031 - Contact with acids liberates toxic gas.

The foregoing information is based on the present state of our knowledge. It characterizes the product with respect to the appropriate safety measures. They do not guarantee the properties of the product.

We do not take responsibility for damage and losses that may result from inappropriate use of the mixture.

**Reason of changes:**

Change in section 9 a) Appearance (colour)