



# MATERIAL SAFETY DATA SHEET

Date of card preparation: 23/09/2010  
Date of card update: 28/03/2012

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

### **1.1. Product identifier**

**Mythic 18 Cyanide free Lytic solution (HM18-008-05)**  
**Mythic 18 Cyanide free Lytic solution (HM18-008-1)**

Red blood cells lysing solution for haematology analyser Mythic 18.

### **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](mailto: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**

**This mixture is not classified as hazardous.**

### **2.2. Label elements**

**The mixture do not require to be labeled as hazardous.**

### 2.3. Other hazards

This mixture do not meet the criteria for PBT and vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable.

### 3.2. Mixtures

**Dodecyltrimethylammonium chloride (DTAC)** Contains: < 3%

CAS number: 112-00-5

EC number: 203-927-0

Index number -

Registration number: Not applicable.

**Classification according to EU Directives 67/548/EEC or 1999/45/EC:**

Xi, R36/37/38

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]:**

Skin Irrit.2, H315

Eye Irrit.2, H319

STOT SE 3, H335

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:** supply fresh air. Consult doctor in case of symptoms.

**After skin contamination:** The product is not skin irritating.

**After contamination of eyes:** Rinse opened eye for several minutes under running water.

**After swallowing:** In case of persistent symptoms consult 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

**Suitable extinguishing media:** CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jest or alcohol-resistant foam.

No data about do not recommended extinguishing media.

The mixture is inflammable.

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

There is no data about hazardous substances which may occur during fire thermal decomposition of the mixture.

## 5.3. Advice for firefighters

No special measures required.

# 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 mixture.  
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. See section 7 for information on safe handling.

# 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.  
Hermetically closed. In temperature from +8°C do +30°C.  
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

Do not contain substances with occupational exposure limit values at workplace.

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

No data available.

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

**General protective and hygienic measures:** The usual precautionary measures should be adhered to in handling the chemicals.

**Breathing equipment:** Not required.

**Protection of hands:** The glove material has to be impermeable and resistant to the product/the substance/the preparation.

Due to missing tests no recommendation to the glove material can be given or the product/the preparation/the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Material of gloves:** The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses recommended during refilling.

### 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 solution, foamy colourless to light yellow</i>
b) Odour:	<i>weak odour of amines</i>
c) Odour threshold :	<i>no data available</i>
d) pH at 25 <sup>0</sup> C:	<i>7.8 (7.7 – 7.9)</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) Ignition temperature:	<i>no data available</i>

i) Flammability (solid, gas)	<i>incombustible</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>Fully miscible.</i>
o) Partition coefficient: n-octanol/water	<i>no data available</i>
p) Auto-ignition temperature	<i>Product is not self igniting.</i>
q) Decomposition temperature:	<i>no data available</i>
r) Viscosity :	<i>no data available</i>
s) Explosive properties:	<i>Product is not explosive.</i>
t) Oxidising properties :	<i>no data available</i>
u) Electrical conductivity:	<i>7.16 (7.10 – 7.22)</i>
w) Evaporation rate:	<i>no data available</i>
x) Osmolality	<i>130 (120 – 140) mOsmol/kg H<sub>2</sub>O</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

The product is stable in conditions provided by the manufacturer. Avoid light and heat.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

No dangerous decomposition products known.

## ***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**

No data for the mixture. Quantitative data on the ecological effect of this product are not available. Ecological problems should not be expected if the product were used and applied appropriately.

### **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 UE2001/58/WE, the EC Directive Nr 1999/45/EG, the EC Directive 67/548 EEC, EC Directive 88/379/EEC or the EC Directive 91/155/EEC (Dangerous Product Regulations incl. EC Guidelines). 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) (attachment II)

## 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 36/37/38- Irritating to eyes, respiratory system and skin.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

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.

Explanations of the changes:

Change of technology.