



# MATERIAL SAFETY DATA SHEET

Revision: 11.09.2019

Version: 01

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

### 1.1. Product identifier

**MYTHIC 18 VET M-PACK (Cat. No HMVET-010)**

MYTHIC 18 VET M-PACK is designed for use on Mythic 18 Vet analyzer.

### 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  
CH-1228 Geneva / Plan-les-Ouates  
SWITZERLAND  
Phone: +41 22 884 90 90  
Fax: +41 22 884 90 99**

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

### 1.4. Emergency telephone number

The local/in-country emergency telephone number.

## *SECTION 2: Hazards identification*

### 2.1. Classification of the substance or mixture

**The mixtures do not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

### 2.2. Label elements

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

### 2.3. Other hazards

The mixtures do not meet the criteria for PBT and vPvB.

## **SECTION 3: Composition/information on ingredients**

### 3.1. Substances

Not applicable.

### 3.2. Mixtures

#### **DILUENT / CLEANER**

##### **Boric Acid**

Contains: < 0.5%

CAS number: 10043-35-3  
EC number: 233-139-2  
Index number: 005-007-00-2  
Registration number: not available

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

Repr. 1B, H360FD

#### **LYSING REAGENT**

##### **Dodecyltrimethylammonium chloride (DTAC)**

Contains: < 2.5%

CAS number: 112-00-5  
EC number: 203-927-0  
Index number: -----  
Registration number: Not applicable.

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

Acute Tox 4, H302  
Skin Irrit. 2, H315  
Eye Irrit. 2, H319  
STOT SE 3, H335  
Aquatic. Acute 1, H400  
Aquatic Chronic 1, H410

The full text of 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. Call in physician.  
**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 15 minutes with the eyelid held wide open.  
**After consumption:** give the sufferer a large amount of water to drink.  
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 non-flammable.  
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**

During fire thermal decomposition of the substances contained in the preparation may occur. As a result of that toxic vapours may be formed.

#### **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 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.

## ***SECTION 7: Handling and storage***

### **7.1. Precautions for safe handling**

While working with the mixture, one should use appropriate means of personal protection (see pt. 8). Avoid contact of the mixture 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 mixture, 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 from direct sunlight and avoid contamination!  
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 materials 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***

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 use glasses.

**b) skin protection:****- hand protection:**

Avoid direct contact of the product with skin, immediately take off clothes soiled with the mixture 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 not required.

**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**

	Cleaner	Lysing Reagent	Diluent
a) Appearance :			
-The physical state :	<i>clear solution</i>	<i>clear solution</i>	<i>clear solution</i>
-Colour:	<i>colourless</i>	<i>colourless</i>	<i>colorless</i>
b) Odour:	<i>characteristic</i>	<i>characteristic smell of amines</i>	<i>odourless</i>
c) Odour threshold :	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
d) pH:	<i>7.55 (25°C)</i>	<i>7.32 (25°C)</i>	<i>7.45 (25°C)</i>
e) Melting point/freezing point	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
f) Initial boiling point and boiling range	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
g) Flash point:	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
h) Evaporation rate:	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
i) Flammability (solid, gas)	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
j) Upper/lower flammability or explosive limits :	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
k) Vapour pressure :	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
l) Vapour density :	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
m) Relative density:	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
n) Solubility(ies)	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
o) Partition coefficient: n-octanol/water	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
p) Auto-ignition temperature	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
q) Decomposition temperature:	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
r) Viscosity :	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
s) Explosive properties:	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
t) Oxidising properties :	<i>no data available</i>	<i>no data available</i>	<i>no data available</i>
u) Electrical conductivity:	<i>235 mOsmol/kg H<sub>2</sub>O</i>	<i>132 mOsmol/kg H<sub>2</sub>O</i>	<i>302 mOsmol/kg H<sub>2</sub>O</i>
w) Osmolality:	<i>9.40 mS/cm (25°C)</i>	<i>9.75 mS/cm (25°C)</i>	<i>15.5 mS/cm (25°C)</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 heat and freezing. Protect from direct sunlight and avoid contamination!

### 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**

**Quantitative data on the ecological effect of this mixture are not available**

***Ecotoxicity:***

No data available.

The mixture toxicity evaluation is based on evaluation of the toxicity of particular components.

***Data for DTAC:***

Toxicity to fish LC<sub>50</sub> - *Carassius auratus* (goldfish) – 0.35 mg/l - 24 h

Toxicity to daphnia and other aquatic invertebrates (*Daphnia magna*) LC<sub>50</sub> – 0.06 mg/l - 24 h

Toxicity to algae EC<sub>50</sub> - Algae – 0.09 mg/l - 96 h

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

***Further ecological data:***

Prevent disposal into water, 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.

	<b>Waste classification</b>	<b>UE waste code reagent</b>	<b>UE waste code direct packaging</b>
DILUENT	non-dangerous	18 01 07	15 01 02
LYSING REAGENT	non-dangerous	18 01 07	15 01 02
CLEANER	non-dangerous	18 01 07	15 01 02

EU Waste Disposal Code (EWC):

15 01 02 plastic packaging

18 01 07 chemicals other than those mentioned in 18 01 06 (18 01 06 chemicals consisting of or containing dangerous substances)

## ***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 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:**

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.

Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives Text with EEA relevance.

Council Regulation (EU) 2017/997 of 8 June 2017 amending Annex III to Directive 2008/98/EC of the European Parliament and of the Council as regards the hazardous property HP 14 Ecotoxic.

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

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

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

#### ***Full text of abbreviations and acronyms:***

Repr. 1B - Reproductive toxicity (category 1B)

Acute Tox. 4 - Acute toxicity (category 4)

Skin Irrit. 2 - Skin irritation (category 2)

Eye Irrit. 2 - Eye irritation (category 2)

STOT SE 3 - Specific target organ toxicity — single exposure (category 3)

Aquatic Acute 1 – Acute aquatic toxicity (category 1)

Aquatic Chronic 1 - Hazardous to the aquatic environment (category 1)

PBT - persistent, bioaccumulative and toxic substances

vPvB - very persistent and very bioaccumulative substances

***Text of H-code(s):***

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

H400 - Very toxic to aquatic life.

H410 - Very toxic to aquatic life with long lasting effects.

H360FD - May damage fertility. May damage the unborn child.

Methods of evaluating information for the purpose of classification: calculation method.

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:**

Format change.

Information on ingredients at section 3.2.

Change properties indicated in the section 9.1 and 12.1.

Entering a sentence "Protect from direct sunlight and avoid contamination!" (section 7.2 and 10.4).

Introducing information about waste classification and the assigned waste codes (section 13.1).

Introducing information about EU legislation concerning waste classification (section 15.1).