

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Issue date: 23/03/2020

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Version: 1.1

SDS No: 12236-0032

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Antolox M2

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Chemical for synthesis

##### 1.2.2. Uses advised against

No additional information available

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

Imbach Chemie AG

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[info@imbachchemie.ch](mailto:info@imbachchemie.ch) - [www.imbachchemie.ch](http://www.imbachchemie.ch)

#### 1.4. Emergency telephone number

Emergency number : England & Wales: 111, Scotland: 111

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Corrosive to metals, Category 1 H290  
Skin corrosion/irritation, Category 1 H314  
Serious eye damage/eye irritation, Category 1 H318  
Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage. May be corrosive to metals.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger  
Hazardous ingredients : Phosphoric acid  
Hazard statements (CLP) : H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.  
Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor.  
P405 - Store locked up.

#### 2.3. Other hazards

No additional information available

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SDS No: 12236-0032

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	50 - 75	Met. Corr. 1, H290 Skin Corr. 1B, H314

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	( 10 ≤C < 25) Eye Irrit. 2, H319 ( 10 ≤C < 25) Skin Irrit. 2, H315 ( 25 ≤C ≤ 100) Skin Corr. 1B, H314

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Adhere to personal protective measures when giving first aid. Take off immediately all contaminated clothing. Symptoms of poisoning may not appear for several hours.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a doctor. In case of loss of conscience place the victim in the recovery position.
First-aid measures after skin contact	: Wash skin with plenty of water. Call a doctor.
First-aid measures after eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist.
First-aid measures after ingestion	: Do not induce vomiting. Attention in case of vomiting - acute danger of suffocating, produced by foaming ingredients. Call a doctor. Rinse mouth out with water. Drink plenty of water.

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

Symptoms/effects after skin contact	: Causes severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: May perforate the oesophagus or the digestive tract.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Fire-extinguishing activities according to surrounding. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: high volume water jet.

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

Explosion hazard	: Vapours may form explosive mixture with air.
Hazardous decomposition products in case of fire	: Toxic gases. Toxic vapours. Hydrogen sulfide. Sulphur oxides. Carbon monoxide. Carbon dioxide.

#### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.
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# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SDS No: 12236-0032

Other information : Cool containers at risk with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

### SECTION 6: Accidental release measures

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

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

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

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

For containment : Collect spillage.  
Methods for cleaning up : Ensure adequate air ventilation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Neutralize.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

Refer to protective measures listed in sections 7 and 8. For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse.

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

Storage conditions : Keep container tightly closed in a dry, cool and well-ventilated place. Avoid sub-soil penetration. Keep out of frost.  
Incompatible materials : Aluminium. Light metals.  
Storage temperature : 5 – 30  
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Phosphoric acid (7664-38-2)	
EU - Occupational Exposure Limits	
Local name	Orthophosphoric acid
IOELV TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
IOELV STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	Orthophosphoric acid
WEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
WEL STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SDS No: 12236-0032

### Phosphoric acid (7664-38-2)

Regulatory reference EH40/2005 (Fourth edition, 2020). HSE

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. Provide eye bath. Provide emergency shower.

#### Hand protection:

Protective gloves. Select the appropriate glove material adhering to the breakthrough time, permeation rate and the degradation. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
protective gloves	Nitrile rubber (NBR), Polyvinylchloride (PVC)	6 (> 480 minutes)	0,35		EN ISO 374

#### Eye protection:

Protective goggles (EN 166)

#### Skin and body protection:

Long sleeved protective clothing. EN 368

#### Respiratory protection:

Not required for normal conditions of use

Device	Filter type	Condition	Standard
Self contained breathing apparatus		Long term exposure	
Breathing equipment	A2, P2	Aerosols	

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: colourless to slightly yellow.
Odour	: Almost odourless.
Odour threshold	: No data available
pH	: < 1 (20°C)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 18 °C
Freezing point	: No data available
Boiling point	: 120 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: ≈ 20 hPa (20°C)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.574 g/cm <sup>3</sup> (20°C)
Solubility	: completely miscible with: Water.
Log Pow	: No data available

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)  
SDS No: 12236-0032

Viscosity, kinematic	: 25 mm <sup>2</sup> /s
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Not self-igniting.
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May be corrosive to metals.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known.

### 10.4. Conditions to avoid

See Section 7.

### 10.5. Incompatible materials

Strong acids and oxidants. Light metals.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes severe skin burns. pH: < 1 (20°C)
Serious eye damage/irritation	: Causes serious eye damage. pH: < 1 (20°C)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### 12.2. Persistence and degradability

No additional information available

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)  
SDS No: 12236-0032

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Do not flush into surface water or sewer system

## SECTION 13: Disposal considerations






### 13.1. Waste treatment methods

Waste treatment methods : Disposal in accordance with local regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.

European List of Waste (LoW) code : 16 05 08\* - discarded organic chemicals consisting of or containing dangerous substances  
15 01 02 - plastic packaging

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 1805	UN 1805	UN 1805	UN 1805	UN 1805
<b>14.2. UN proper shipping name</b>				
PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID SOLUTION	Phosphoric acid, solution	PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID, SOLUTION
<b>Transport document description</b>				
UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III, (E)	UN 1805 PHOSPHORIC ACID SOLUTION, 8, III	UN 1805 Phosphoric acid, solution, 8, III	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III
<b>14.3. Transport hazard class(es)</b>				
8	8	8	8	8
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

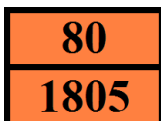
Classification code (ADR) : C1  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)  
SDS No: 12236-0032

Mixed packing provisions (ADR) : MP19  
Transport category (ADR) : 3  
Hazard identification number (Kemler No.) : 80  
Orange plates :



Tunnel restriction code (ADR) : E  
EAC code : 2R

### Transport by sea

Special provisions (IMDG) : 223  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Segregation (IMDG) : SG36, SG49  
Properties and observations (IMDG) : Miscible in water. Mildly corrosive to most metals.

### Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y841  
PCA limited quantity max net quantity (IATA) : 1L  
PCA packing instructions (IATA) : 852  
PCA max net quantity (IATA) : 5L  
CAO packing instructions (IATA) : 856  
CAO max net quantity (IATA) : 60L  
Special provisions (IATA) : A3, A803  
ERG code (IATA) : 8L

### Inland waterway transport

Classification code (ADN) : C1  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Equipment required (ADN) : PP, EP  
Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : C1  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Transport category (RID) : 3  
Hazard identification number (RID) : 80

## 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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3(b)	Antolox M2 ; Phosphoric acid	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SDS No: 12236-0032

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

### Full text of H- and EUH-statements:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1



# Antolox M2

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SDS No: 12236-0032

Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Met. Corr. 1	H290	On basis of test data
Skin Corr. 1	H314	On basis of test data
Eye Dam. 1	H318	On basis of test data

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.