



Safety Data Sheet
According to Regulation EC No.
2020/87 to REACH

Effective date: 24 Oct.2019

Revision date: 26/4/2023

A-PPAS-MET

This SDS consists of 8 pages

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING

- 1.1 Product identifier: **A-PPAS-MET, absorption solution**
UFI: GEF2-TMQN-2HNC-Q6DS
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:
Designed for laboratory use - absorption solution for metals – to be used for collecting air samples using an impinger
- 1.3 Details of the Supplier of the safety data sheet:
ALS Czech Republic s. r. o., Na Harfě 336/9, 190 00 Praha 9
Tel.: +420 284 081 600
email: info@alsglobal.com
Web: www.alsglobal.cz; www.alsglobal.com
Contact person responsible for information in this SDS:
customer.support@alsglobal.com
By Zbyněk Moravec
- 1.4 Emergency telephone number – Toxicological Information Centre
Na Bojišti 1, 128 08 Praha 2, tel.: 224915402; 224914575

SECTION 2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture according to CLP
Causes serious eye damage. (H318)
Causes skin irritation. (H315)
- 2.2 Label elements:



Signal word: Danger

Hazard phrases:

H318 Causes serious eye damage.
H315 Causes skin irritation

Precautionary phrases:

P264 Wash with water thoroughly after handling.



P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container as dangerous waste.

- 2.3 Other Hazards: none known. None of the components are in nanoform. None of the components, according to current knowledge, have the properties of an endocrine disruptor. Based on calculation according to Annex 1 CLP, Article 3.1.3.6., ATE value was determined as exceeding the criteria for acute toxicity 4, the resulting product is therefore not classified as acutely toxic.
H-phrases: listed in Section 16

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Compounds – n/a
3.2 Mixtures:

EC No.	Name	Content (%) general concentration limit; Specific concentration limit M-factor
CAS No.	Classification	
Index number	Classification CLP	
231-714-2	Nitric acid	4.5
7697-37-2	Skin Corr. 1A, H314; Ox. Liq. 3 H272; Acute tox. 3 H331 GHS 03; GHS 05; GHS 06 Dgr ATE: 700 (if inhaled, fumes)	OCL: ≥5
007-004-00-1		Ox. Liq. 2; H272: C ≥99 % Ox. Liq. 3; H272: 70 % ≤C <99 %
231-765-0	Hydrogen peroxide	1.6
7722-84-1	Ox. Liq. 1 H271; Acute Tox. 4* H332; Acute Tox. 4* H302;	OCL: ≥5;



008-003-00-9	Skin. Corr. 1A H314, GHS 03, GHS 05; HGS 07; Dgr, ATE: 700 (if inhaled, fumes)	STOT SE 3; H335; C ≥35 % Eye Dam. 1; H318: 8 % ≤C <50 % Eye Irrit. 2; H319: 5 % ≤C <8 % Ox. Liq. 1; H271: C ≥70 %**** Ox. Liq. 2; H272: 50 % ≤C <70 % **** Skin Corr. 1A; H314: C ≥70 % Skin Corr. 1B; H314: 50 % ≤C <70 % Skin Irrit. 2; H315: 35 % ≤C <50 %
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A complete list of H-phrases is in Section 16

SECTION 4. FIRST AID MEASURES

- 4.1 Description of first aid measures
- If breathed in, move person into fresh air.
 - If swallowed, consult a physician, and show them either the label or this SDS. Never induce vomiting
 - If on skin, wash with plenty of soap and water.
 - If in eyes, rinse cautiously with water for at least 15 minutes, remove safely contact lenses. Always consult a physician even if symptoms do not persist.
- 4.2 Most important symptoms and effects, both acute and delayed: none known
- 4.3 Indication of any immediate medical attention and special treatment needed: medical attention necessary when nausea persist. Symptomatic treatment.

SECTION 5. FIRE FIGHTING MEASURES

- 5.1 Extinguishing media: not applicable, the mixture is not combustible.
Non-suitable extinguishing media: not applicable, the mixture is not combustible.
- 5.2 Special hazards arising from the substance or mixture: no special measures required
- 5.3 Advice for firefighters: the mixture is not combustible; corrosive and irritating effects; wear eye and skin protection equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment, and emergency procedures: eye and skin protection – the mixture is corrosive and irritating.



- 6.2 Environmental precautions: no special measures required
- 6.3 Methods and materials for containment and cleaning up: use plenty of water and a sorbent. Collect into sealed and labelled bottles.
- 6.4 Reference to other sections: Section 13

SECTION 7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling: Keep containers tightly closed and store away from bases.
- 7.2 Conditions for safe storage, including any incompatibilities: do not expose to higher temperatures. Do not store together with lye.
- 7.3 Specific end use(s): see Section 1, no special requirements.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters: according to GR No. 361/2007, Coll.

	PEL [mg.m^{-3}]	HPC [mg.m^{-3}]
Nitric acid	1	2.5
Hydrogen peroxide	1	2.0

DNEL Nitric acid ...%

Workers/users	Route of exposure	Hodnota (mg.m^{-3})	Effects
Workers	Inhalation	2.6	Local acute effects
Workers	Inhalation	1.3	Local systemic effects
Users	Inhalation	1.3	Local acute effects
Users	Inhalation	0.65	Local systemic effects

- 8.2 Exposure controls: always apply general safety rules for working with chemicals, do not eat, drink, smoke and inhale fumes and avoid contact with skin. After work or before a meal break washes your hands thoroughly with soap and water. It is necessary to ensure exhaust ventilation.

Eye/face protection: tightly fitting safety goggles or face-shield (according to nature of performed work)

Skin protection

Hand protection: Protective gloves with durability of at least 1 hour are recommended for a repeated short-term use. Follow instructions provided by their manufacturer. Gloves must resist corrosion.

Other: wear protective clothing. Wash contaminated skin thoroughly with soap and water.

Respiratory protection: no aspiration exposure expected during a common use of the product. When there is a risk of exceeded limits, use a half-mask with a filter against acidic vapours.



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- a) Physical state: liquid
 - b) Colour: colourless
 - c) Odour: irritant
 - d) Melting point/freezing point: $< 0\text{ }^{\circ}\text{C}$
 - e) Initial boiling point and boiling range; $> 100\text{ }^{\circ}\text{C}$
 - f) Flammability (solid, gas): not flammable
 - g) Upper/lower flammability or explosive limits: not applicable
 - h) Flash point: not applicable
 - i) Autoignition temperature: not applicable
 - j) Decomposition temperature: no data available
 - k) pH < 3
 - l) Kinematic viscosity: no data available
 - m) Solubility: soluble at all ratios
 - n) N-octanol/water partition coefficient: no data available
 - o) Vapour pressure: no data available
 - p) Specific gravity: no data available
 - q) Vapour density: no data available
 - r) Particle characteristics: not applicable
- 9.2 Other safety information: no additional data available

SECTION 10. STABILITY AND REACTIVITY

- 10.1 Reactivity: no adverse reactions under common conditions, it reacts violently with bases.
- 10.2 Chemical stability: Stable when under common conditions and when stored properly. Do not store together with lye. Rinse vessels with water before use.
- 10.3 Possibility of hazardous reactions: reacts violently with lye
- 10.4 Conditions to avoid: contact with lye
- 10.5 Incompatible materials: strong lye
- 10.6 Hazardous decomposition products: nitrogen oxides

SECTION 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects: causes severe skin burns
- a) Acute toxicity: no data on acute toxicity available. Components of the mixture in the used concentrations are not classified as acute toxic.

Information on components:

Hydrogen peroxide CAS 7722-84-1			
LD ₅₀ mg.l ⁻¹ orally	1193-1270	rat	
Nitric acid CAS 7697-37-2			
LC ₅₀ mg.l ⁻¹ inhalation(4h) gasses, vapours, recalculated to NO ₂	685 ppm	rat	
LDLo (human) mg.kg ⁻¹	430		Water-free substance
ATE vapours mg.l ⁻¹	2,65		



- b) Skin corrosion/irritation: skin irritation
- c) Serious eye damage/eye irritation: may cause serious eye damage
- d) Respiratory or skin sensitization: nil
- e) Germ cell mutagenicity: unknown, components are not classified as of CMR properties
- f) Carcinogenicity: unknown, components are not classified as of CMR properties
- g) Reproductive toxicity: unknown, components are not classified as of CMR properties
- h) Specific target organ toxicity - single exposure: components of the mixture in the used concentrations are not classified as STOT SE
- i) Specific target organ toxicity - repeated exposure: components of the mixture in the used concentrations are not classified as STOT SE
- j) Aspiration hazard: may be irritating to the respiratory tract,
- k) Chronic/sub-chronic toxicity: no data available

11.2 Other Hazards

11.2.1 Endocrine disrupting properties: none of the components of the mixture have endocrine disruptor properties.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity: the mixture is not classified as toxic to environment

Information on components:

parameter	value	Exposure time period	Species	Comments
Hydrogen peroxide CAS 7722-84-1				
LC ₅₀ (mg.kg ⁻¹)	188	96 hrs. (fish)	Oncorhynchus mykiss	
EC ₅₀ (mg.kg ⁻¹)	13	48 hrs. (crustacean)	Daphnia magna	
IC ₅₀ (mg.kg ⁻¹)	11-15	72 hrs. (algae)	Selenastrum capricornutum	
Nitric acid CAS 7697-37-2				
LC ₅₀ (mg.kg ⁻¹)	3.7	96 hrs. (fish)	Oncorhynchus mykiss	
EC ₅₀ (mg.kg ⁻¹)	8609	24 hrs. (crustacean)	Daphnia magna	

12.2 Persistence and degradability: no long-term persistence in environment

12.3 Bio accumulative potential: no data available, not assumed

12.4 Mobility in soil: no data available, not assumed

12.5 Results of PBT and vPvB assessment: it belongs to no category; it does not contain components classified in this way

12.6 Endocrine disrupting properties: none of the components of the mixture have endocrine disruptor properties.

12.7 Other adverse effects: no further data available.



SECTION 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods: Follow local regulations on packaging and waste disposal. They may vary in different countries. If compliant with local regulations, a small amount may be drained into sewers after it has been diluted in at least 1:30 ratio. European waste catalogue code 06 01 06 – other acids

SECTION 14. TRANSPORT INFORMATION

The mixture is not classified as dangerous goods.

14.1 UN or ID number:

14.2 UN proper shipping name

ADR UN

IATA UN – packing instructions

IMDG

14.3 Transport hazard class:

14.4 Packing group:

14.5 Environmental hazards: none

14.6 Special precautions for user:

14.7 Transport in bulk according to IMO Instruments: unknown

SECTION 15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
Act No. 350/2011 Coll., act No. 258/2000 Coll. as amended, act No. 541/2020 Coll. as amended and relevant implementing regulations.
GR No. 361/2007 Coll. as amended, Reg. EC 1272/2008
- 15.2 Chemical Safety Assessment carried out for:
Component CAS **7697-37-2 Nitric acid**
Component CAS **7722-84-1 Hydrogen peroxide**

SECTION 16. OTHER INFORMATION

The mixture shall be used only in compliance with directions for use and caution instructions shall be considered.

Only people qualified and trained in relevant method may use the mixture.

Conventional calculation methods were used to create this document based on data on properties of individual components, list of harmonized classifications and data provided by their manufacturers or importers.

Revised version as of 5/2022 has been formally adjusted to Reg. (EU) 2020/878



Further H-phrases:

H314 Causes severe skin burns and eye damage.
H270 May cause or intensify fire; oxidiser.
H271 May cause fire or explosion; strong oxidiser.
H302 Harmful if swallowed.
H331 Toxic if inhaled.
H332 Harmful if inhaled

Abbreviations

REACH: Regulation (EC) No 1907/2006
CLP: Regulation (EC) No 1272/2008
PEL: Permissible Exposure Limit
MPC: Maximum Permissible Concentration
BET: Biological Exposure Test
DNEL: Derived No-Effect Level
PNEC: Predicted No-Effect Concentration
GCL: Generic Concentration Limit