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

1.1 Product identifier

Trade name: FP-747 Jet Pak
UFI: MQ00-E0HK-X00A-4TJ8

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

Application of the substance / the mixture Acidifier

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
TURF Handels GmbH
Am Hartboden 48
A-8101 Gratkorn
T: +43 3124 29064
F: +43 3124 29062

Further information obtainable from: Email: office@turf.at

1.4 Emergency telephone number:

+43 3124 29064
Available during office hours:
Mo - Th: 8 a.m. - 4.30 p.m.
Fr: 8 a.m. - 2.30 p.m.

Call the national emergency number!

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Met. Corr.1 H290 May be corrosive to metals.

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Additional information: For the wording of the hazard categories, see section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS05

Signal word Danger
Hazard statements
H290 May be corrosive to metals.

(Contd. on page 2)

(Contd. of page 1)

H314 Causes severe skin burns and eye damage.

Precautionary statements

P234 Keep only in original packaging.
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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/doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: The mixture does not contain PBT substances ≥ 0,1 %.

vPvB: The mixture does not contain vPvB substances ≥ 0,1 %.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

[% (w/w)]

CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6 RTECS: TB 6300000 Reg.nr.: 01-2119485924-24-XXXX	phosphoric acid Met. Corr.1, H290; Skin Corr. 1B, H314 Acute Tox. 4, H302 ATE: LD50 oral: 500 mg/kg Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % Met. Corr.1; H290: C ≥ 20 %	10 – 20%
CAS: 25322-68-3 NLP: 500-038-2	Polyethylene glycol substance with a Community workplace exposure limit	10 – 20%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

In case of discomfort or doubt, seek medical advice.

If unconscious, use a stable lateral position and do not administer anything through mouth.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

(Contd. on page 3)

(Contd. of page 2)

In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Take off contaminated clothing and wash it before reuse.
Seek medical treatment.
After eye contact:
Rinse opened eye for several minutes under running water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Seek medical treatment.
After swallowing:
Rinse mouth.
Do NOT induce vomiting.
Call a doctor immediately.
4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed
Depending on the condition of the patients, the doctor must assess the symptoms and the overall general condition.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents: Water with full jet
5.2 Special hazards arising from the substance or mixture
In case of fire, the following can be released:
COx, POx
5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Restricted access to the affected area until cleaning work is completed.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid contact with skin and eyes.
Do not breathe vapour/spray.
6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up:
Absorb leaked liquid with liquid-binding, inert material (sand, diatomaceous earth, acid binders, universal binders).

(Contd. on page 4)

(Contd. of page 3)

Dispose of the material collected according to regulations.
Ensure adequate ventilation.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure adequate ventilation.
Keep receptacles tightly sealed.
Avoid contact with skin and eyes.
Prevent formation of aerosols.
Avoid breathing mist/vapours/spray.
Use personal protective equipment as required.
Observe protective measures and safety instructions.
Information about fire - and explosion protection:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Store in a dry, cool, well-ventilated area.
Provide acid-resistant floor.
Store in accordance with local/regional/national/international regulations.
Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from feeding stuff.
Do not store together with alkalis (caustic solutions).
Further information about storage conditions:
Keep container tightly sealed.
Protect container from damage.
Protect from frost.
Protect from heat and direct sunlight.
Protect from moisture.
Recommended storage temperature: room temperature
Storage class: 8 B
7.3 Specific end use(s) No further relevant information available.

(Contd. on page 5)

(Contd. of page 4)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 7664-38-2 phosphoric acid	
IOELV (EU)	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³
MAK (Austria)	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³
AGW (Germany)	Long-term value: 2 E mg/m³ 2(I);DFG, EU, AGS, Y
LEP (Spain)	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³ VLI, s
VLEP (France)	Short-term value: 2 mg/m³, 0.5 ppm Long-term value: 1 mg/m³, 0.2 ppm
WEL (Great Britain)	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³
TWA (Italy)	Short-term value: 3 mg/m³ Long-term value: 1 mg/m³
VL (Italy)	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³
WGW (Netherland)	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³
CAS: 25322-68-3 Polyethylene glycol	
AGW (Germany)	Long-term value: 200 E mg/m³ 2(II);DFG, Y

Regulatory information
IOELV (EU): (EU) 2019/1831
MAK (Austria): GKV 2020, 156. Verordnung, 09.04.2021, Teil II
AGW (Germany): TRGS 900
LEP (Spain): Límites de exposición profesional para agentes químicos
VLEP (France): ED 1487 05.2021
WEL (Great Britain): EH40/2020
TWA (Italy): Valori Limite di Soglia
VL (Italy): D.lgs. n. 81/2008
WGW (Netherland): Grenswaarden gezondheidsschadelijke stoffen

DNELs		
CAS: 7664-38-2 phosphoric acid		
Oral	Long-term exposure - systemic effects	0.1 mg/kg bw/d (consumer)
Inhalative	Long-term exposure - systemic effects	4.57 mg/m³ (consumer) 10.7 mg/m³ (workers)

(Contd. on page 6)

(Contd. of page 5)

	Long-term exposure - local effects	0.36 mg/m³ (consumer) 1 mg/m³ (workers)
	short-term exposure - local effects	2 mg/m³ (workers)
CAS: 25322-68-3 Polyethylene glycol		
Dermal	Long-term exposure - systemic effects	112 mg/kg bw/d (workers)
Inhalative	Long-term exposure - systemic effects	40.2 mg/m³ (workers)

PNECs	
CAS: 25322-68-3 Polyethylene glycol	
fresh water	273 mg/l
sea water	27.3 mg/l
sediment (fresh water)	1,030 mg/kg dw
sediment (sea water)	103 mg/kg dw
soil	46.4 mg/kg dw

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls

No further data; see section 7.

Technical measures and the use of suitable working methods take priority over the use of personal protective equipment.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Do not eat or drink while working.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing.

Prevent formation of aerosols.

Avoid breathing mist/vapours/spray.

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye wash bottles and emergency showers should be provided in the immediate area near the workplace.

Respiratory protection:

If vapours/aerosols and/or inadequate ventilation are present, respiratory protection must be worn.

Hand protection

Protective gloves

EN 374

The glove material has to be impermeable and resistant to the product/ the substance/ the mixture.

(Contd. on page 7)

(Contd. of page 6)

Material of gloves
Chloroprene gloves; Recommended material thickness: ≥ 0.5 mm, Penetration time: ≥ 480 min
Nitrile rubber gloves; recommended material thickness: 0.35 mm, penetration time: ≥ 480 min
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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
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/face protection

Tightly sealed goggles

EN 166
Body protection: Protective work clothing
Environmental exposure controls Do not allow to enter sewers/ surface or ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state	Fluid
Colour:	Light yellow
Odour:	Odourless
Odour threshold:	No information available.
Melting point/freezing point:	No information available.
Boiling point or initial boiling point and boiling range	101 °C
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	No information available.
Upper:	No information available.
Flash point:	No information available.
Decomposition temperature:	No information available.
pH at 20 °C	1 – 1.5
Viscosity:	
Kinematic viscosity	No information available.
Dynamic:	No information available.
Solubility	
water:	Soluble.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.

(Contd. on page 8)

(Contd. of page 7)

Density and/or relative density	
Density at 20 °C:	1.08 g/cm³
Vapour density	No information available.

9.2 Other information

Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Change in condition	
Softening point/range	
Oxidising properties	No information available.
Evaporation rate	No information available.

Information with regard to physical hazard classes	
Explosives	void
Flammable gases	void
Aerosols	void
Oxidising gases	void
Gases under pressure	void
Flammable liquids	void
Flammable solids	void
Self-reactive substances and mixtures	void
Pyrophoric liquids	void
Pyrophoric solids	void
Self-heating substances and mixtures	void
Substances and mixtures, which emit flammable gases in contact with water	void
Oxidising liquids	void
Oxidising solids	void
Organic peroxides	void
Corrosive to metals	May be corrosive to metals.
Desensitised explosives	void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions Exothermic reactions with alkalis.
10.4 Conditions to avoid
Protect from heat and direct sunlight.
Protect from frost.
10.5 Incompatible materials: No further relevant information available.

(Contd. on page 9)

(Contd. of page 8)

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:		
ATE (Acute Toxicity Estimates)		
Oral	LD50	2,500 – 5,000 mg/kg (ATE)

CAS: 7664-38-2 phosphoric acid		
Oral	LD50	500 mg/kg (ATE)
		1,530 mg/kg (rat)
Dermal	LD50	2,740 mg/kg (Rabbit)
CAS: 25322-68-3 Polyethylene glycol		
Oral	LD50	44,200 mg/kg (rat)

Skin corrosion/irritation
Causes severe skin burns and eye damage.
Classified due to the extreme pH value.
Serious eye damage/irritation Causes serious eye damage.
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity Based on available data, the classification criteria are not met.
Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
STOT-repeated exposure Based on available data, the classification criteria are not met.
Aspiration hazard Based on available data, the classification criteria are not met.
11.2 Information on other hazards

Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:	
CAS: 7664-38-2 phosphoric acid	
EC50 (48 h)	> 100 mg/l (daphnia) (Daphnia magna)
EC50 (72 h)	> 100 mg/l (algae) (Desmodesmus subspicatus)

12.2 Persistence and degradability No further relevant information available.
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.

(Contd. on page 10)

(Contd. of page 9)

12.5 Results of PBT and vPvB assessment
PBT: The mixture does not contain PBT substances ≥ 0,1 %.
vPvB: The mixture does not contain vPvB substances ≥ 0,1 %.
12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
12.7 Other adverse effects
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Only dispose of product residues via authorised companies according to local legislation.
European waste catalogue
Notes: The European Waste Catalogue (EWC) classifies waste materials and categorises them according to what they are and how they were produced. This may cause other classifications. The final decision belongs to the last user.

02 01 08*	agrochemical waste containing hazardous substances
HP8	Corrosive

Uncleaned packaging:
Recommendation:
Dispose of packaging according to regulations on the disposal of packagings.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

14.1 UN number or ID number
ADR/RID/ADN, IMDG, IATA UN1805
14.2 UN proper shipping name
ADR/RID/ADN 1805 PHOSPHORIC ACID, SOLUTION
IMDG, IATA PHOSPHORIC ACID, SOLUTION
14.3 Transport hazard class(es)

ADR/RID/ADN, IMDG, IATA

Class 8 Corrosive substances.
Label 8

(Contd. on page 11)

(Contd. of page 10)

14.4 Packing group	
ADR/RID/ADN, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Corrosive substances.
Hazard identification number (Kemler code):	80
EMS Number:	F-A,S-B
Segregation groups	(SGG1) Acids
Stowage Category	A
Segregation Code	SG36 Stow "separated from" SGG18-alkalis. SG49 Stow "separated from" SGG6-cyanides
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.

Transport/Additional information:

ADR/RID/ADN	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	E

IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III

SECTION 15: Regulatory information

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

(Contd. on page 12)

(Contd. of page 11)

Regulation (EC) No 273/2004 on drug precursors
None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
None of the ingredients is listed.

National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
Training hints
Regular training of staff involved in the transport of dangerous goods (in accordance with Chapter 1.3 ADR).
Before handling, storage or use for the first time, employees must be informed about the properties of the substance and about measures taken to ensure safety and environmental protection.

Classification according to Regulation (EC) No 1272/2008	
Corrosive to metals	On basis of test data
Skin corrosion/irritation Serious eye damage/irritation	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Department issuing SDS:
UmEnA GmbH
http://umena.at
Email: office@umena.at
Date of previous version: 20.04.2023
Version number of previous version: 1.0
Abbreviations and acronyms:
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 13)

(Contd. of page 12)

vPvB: very Persistent and very Bioaccumulative
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1