

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name. : "M-A" Stainless Steel Soldering Flux Liquid

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Industrial use, Professional use
Use of the substance/mixture : Soldering flux

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LA-CO Industries Europe S.A.S.
Parc Industriel de la Plaine de
l'Ain - Allée des Combes.
01150.BLYES.France.
Phone: +33 (0)4 74 46 23 23
Fax: +33 (0)4 74 46 23 29
E-mail: info@eu.laco.com
Web: http://www.markal.com

**1.4. Emergency telephone number**

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevatova str. 58 Minsk 220115	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245
BULGARIA	Национален токсикологичен информационен център National Clinical Toxicology Centre, Emergency Medical Institute "Pirogov"	21 Tolleben Boulevard 1606 SOFIA	+359 2 9154 409
CROATIA	Poisons Control Centre Institute of Medical Research & Occupational Health	Ksaverska Cesta 2 P.O. Box 291 HR-10000 Zagreb	+385 1 234 8342
CZECH REPUBLIC	Toxikologické informační středisko Clinic For Occupational Medicine, 1st Medical Faculty, Charles University	Na Bojišti 1 120 00 Praha 2	+42 2 2491 9293 +42 2 2491 5402
DENMARK	Gifftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23, 60, 1 DK-2400 København NV	+45 82 12 12 12 +45 35 31 55 55
ESTONIA	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	+372 626 93 90
FINLAND	Myrkytystietokeskus	P.O.B 340 (Haartmaninkatu 4) HUS SF - 00029 Helsinki	+358 9 471 977
FRANCE	ORFILA		+33 1 45 42 59 59
GERMANY	Berliner Betrieb für Zentrale Gesundheitliche Aufgaben	Oranienburger Strasse 285 13437 Berlin	+49 30 19240
GERMANY	Informations und Beratungszentrum für Vergiftungsfälle	Kirrberger Straße, Gebäude 9 D-66421 Homburg/Saar	+49 6841 19240
GERMANY	Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen	Langenbeckstrasse 1 55131 Mainz	+49 6131 19240
GREECE	Poisons Information Centre	11527 Athens	+30 10 779 3777
HUNGARY	Országos Kémiai Biztonsági Intézet (National Institute of Chemical Safety) Egészségügyi Toxikológiai Tájékoztató Szolgálat (Health Toxicological Information Service)	1437 Budapest PO Box 839 1097 Budapest, Nagyváradi tér 2	+36 80 20 11 99
ICELAND	Eitrunarmiðstöðin	Eitrunarmiðstöðin 108 Reykjavik	+354 543 22 22
IRELAND	National Poisons Information Centre	Beaumont Hospital PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2166
LATVIA	Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs	2 Hipocrate Street LV 1038 Riga	+371 67 04 24 73

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LITHUANIA	Apsinuodijimų kontrolės ir informacijos biuras	Siltnamiu 29 2043 Vilnius	+370 5 236 20 52/+370 687 53 378
MALTA	Medicines & Poisons Info Office	Mater Dei Hospital, Msida MSD 2090 Malta	25450000
NETHERLANDS	Nationaal Vergiftigingen Informatie Centrum National Institute for Public Health and the Environment, NB this service is only available to health professionals	Huispostnummer B.00.118, PO Box 85500 3508 GA Utrecht	+31 30 274 88 88
PORTUGAL	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica (INEM)	Rua Almirante Barroso, 36 1000-013 Lisboa	808 250 143 (for use only in Portugal), +351 21 330 3284
ROMANIA	Biroul pentru Regulamentul Sanitar International si Informare Toxicologica	Str. Dr. Leonte Anastasievici Nr.1-3, Sector 5 50463 Bucuresti	+40 21 318 36 06
SLOVAKIA	Národné toxikologické informačné centrum University Hospital Bratislava	Limbová 5 833 05 Bratislava	+421 2 54 77 4 166
SPAIN	Servicio de Información Toxicológica Instituto Nacional de Toxicología, Departamento de Madrid	Calle Luis Cabrera 9 E-28002 Madrid	+34 91 562 04 20
SWEDEN	Giftinformationscentralen Swedish Poisons Information Centre, Karolinska Hospital	Box 60 500 SE-171 76 Stockholm	+46 8 33 12 31 (International) 112 (National)
SWITZERLAND	Centre Suisse d'Information Toxicologique	Freiestrasse 16 Postfach CH-8028 Zurich	+41 44 251 51 51 (International) 145 (National)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1B H314

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

C; R34

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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)

: H314 - Causes severe skin burns and eye damage

Precautionary statements (CLP)

: P260 - Do not breathe mist/vapours/spray
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face 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/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
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
P321 - Specific treatment (see hands on this label)
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local and national regulations

2.3. Other hazards

PBT: not yet assessed

vPvB: not yet assessed

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Components with health hazards above the applicable thresholds and/or Exposure Limit values are shown. Exact concentrations withheld as trade secret.

Name	Product identifier	%	Classification according to Directive 67/548/EEC	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	30 – 70	C; R34	Skin Corr. 1B, H314
Polyethylene Glycol	(CAS No) 25322-68-3 (EC no) 500-038-2	< 0.1	Not classified	Not classified

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	(10 ≤ C < 25) Xi; R36/38 (C ≥ 25) C; R34 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C < 25) Skin Irrit. 2, H315 (C ≥ 25) Skin Corr. 1B, H314

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries after skin contact	: Causes severe skin burns and eye damage.
Symptoms/injuries after eye contact	: Causes serious eye damage.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not flammable.
Hazardous decomposition products in case of fire	: Burning produces irritating, toxic and noxious fumes. ammonia. Nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flame resistant/retardant clothing. Wear a self contained breathing apparatus. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid all eyes and skin contact and do not breathe vapour and mist.
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6.1.1. For non-emergency personnel

Protective equipment	: Chemical goggles or safety glasses. Wear suitable gloves. Face shield.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Wear suitable gloves. Chemical goggles or safety glasses. Face shield.
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Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk. Contain and/or absorb spill with inert material, then place in suitable container.

Methods for cleaning up : Take up in non-combustible absorbent material and shove into container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe spray, vapours, mist.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in original container. Keep container tightly closed and in a well-ventilated place.

Incompatible products : Strong oxidizing agents. Reducing agents. Peroxides. Metals.

Incompatible materials : Caustic products. Aldehydes. Stow "away from" fluorides. Halogenated compounds. Nitromethane. Sodium borohydride.

Prohibitions on mixed storage : Keep away from incompatible materials.

7.3. Specific end use(s)

Flux.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)		
EU	Local name	Orthophosphoric acid
EU	IOELV TWA (mg/m ³)	1 mg/m ³
EU	IOELV STEL (mg/m ³)	2 mg/m ³
Austria	Local name	Phosphoric acid
Austria	MAK (mg/m ³)	1 mg/m ³
Austria	MAK Short time value (mg/m ³)	2 mg/m ³
Belgium	Local name	Acide phosphorique
Belgium	Limit value (mg/m ³)	1 mg/m ³
Belgium	Short time value (mg/m ³)	2 mg/m ³
Bulgaria	Local name	Ортофосфорна киселина•
Bulgaria	OEL TWA (mg/m ³)	1 mg/m ³
Bulgaria	OEL STEL (mg/m ³)	2 mg/m ³
France	Local name	Acide phosphorique
France	VLE (mg/m ³)	2 mg/m ³
France	VLE (ppm)	0.5 ppm
France	VME (mg/m ³)	1 mg/m ³
France	VME (ppm)	0.2 ppm
Germany	Local name	Orthophosphorsäure
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	4 mg/m ³
Germany	Remark (TRGS 900)	DFG,EU,AGS,Y
Greece	OEL TWA (mg/m ³)	1 mg/m ³
Greece	OEL STEL (mg/m ³)	3 mg/m ³
Italy - Portugal - USA ACGIH	Local name	Phosphoric acid
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
Italy - Portugal - USA ACGIH	ACGIH STEL (mg/m ³)	3 mg/m ³
Italy - Portugal - USA ACGIH	Remark (ACGIH)	URT, eye, & skin irr
Italy	Local name	Acido ortofosforico
Italy	OEL TWA (mg/m ³)	1 mg/m ³
Italy	OEL STEL (mg/m ³)	2 mg/m ³

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Phosphoric acid (7664-38-2)		
Spain	VLA-ED (mg/m ³)	1 mg/m ³
Spain	VLA-EC (mg/m ³)	2 mg/m ³
Spain	Notes	VLI, s
Switzerland	Local name	Acide phosphorique
Switzerland	VLE (mg/m ³)	2 mg/m ³
Switzerland	VME (mg/m ³)	1 mg/m ³
Switzerland	Remark (CH)	4x15
The Netherlands	Local name	Fosforzuur
The Netherlands	MAC TGG 8H (mg/m ³)	1 mg/m ³
The Netherlands	MAC TGG 8H (ppm)	0.2 ppm
The Netherlands	MAC TGG 15MIN (mg/m ³)	2 mg/m ³
The Netherlands	MAC TGG 15MIN (ppm)	0.5 ppm
United Kingdom	Local name	Orthophosphoric acid
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³
Czech Republic	Local name	Kyselina fosfore ná
Czech Republic	Expoziční limity (PEL) (mg/m3)	1 mg/m ³
Czech Republic	Expoziční limity (NPK-P) (mg/m3)	2 mg/m ³
Czech Republic	Remark (CZ)	I
Denmark	Local name	Phosphorpentasulfid
Denmark	Grænseværdie (langvarig) (mg/m3)	1 mg/m ³
Denmark	Grænseværdie (kortvarig) (mg/m3)	2 mg/m ³
Denmark	Anmærkninger (DK)	E
Finland	Local name	Fosforihappo
Finland	HTP-arvo (8h) (mg/m3)	1 mg/m ³
Finland	HTP-arvo (15 min)	2 mg/m ³
Hungary	Local name	ORTOFOSZFORSÁV
Hungary	AK-érték	1 mg/m ³
Hungary	CK-érték	2 mg/m ³
Hungary	Megjegyzések (HU)	m; EU1
Ireland	Local name	Orthophosphoric acid
Ireland	OEL (8 hours ref) (mg/m3)	1 mg/m ³
Ireland	OEL (15 min ref) (mg/m3)	2 mg/m ³
Ireland	Notes (IE)	IOELV
Lithuania	Local name	Fosforo rūgštis, orto-
Lithuania	IPRV (mg/m3)	1 mg/m ³
Lithuania	TPRV (mg/m3)	2 mg/m ³
Malta	Local name	Orthophosphoric acid
Malta	OEL TWA (mg/m ³)	1 mg/m ³
Malta	OEL STEL (mg/m ³)	2 mg/m ³
Norway	Local name	Fosforsyre
Norway	Gjennomsnittsverdier (AN) (mg/m3)	1 mg/m ³
Poland	Local name	Kwas fosforowy(V)
Poland	NDS (mg/m3)	1 mg/m ³
Poland	NDSch (mg/m3)	2 mg/m ³
Romania	Local name	Acid ortofosforic
Romania	OEL TWA (mg/m ³)	1 mg/m ³
Romania	OEL STEL (mg/m ³)	2 mg/m ³
Slovakia	NPHV (priemerná) (mg/m3)	1 mg/m ³
Sweden	Local name	Phosphoric acid
Sweden	nivågränsvärde (NVG) (mg/m3)	1 mg/m ³

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Phosphoric acid (7664-38-2)		
Sweden	kortidsvärde (KTV) (mg/m ³)	3 mg/m ³
Portugal	Local name	Ácido fosfórico
Portugal	OEL TWA (mg/m ³)	1 mg/m ³
Portugal	OEL - Ceilings (mg/m ³)	3 mg/m ³
Croatia	Local name	fosforna kiselina; Ortofosforna
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	1 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	2 mg/m ³
Croatia	Naznake (HR)	C, EU*
Polyethylene Glycol (25322-68-3)		
Austria	MAK (mg/m ³)	1000 mg/m ³ (einatembare Fraktion)
Austria	MAK Short time value (mg/m ³)	4000 mg/m ³ max. 4x15 min./Schicht (einatembare Fraktion)
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	1000 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	8000 mg/m ³
Germany	Remark (TRGS 900)	(einatembare Fraktion)
Switzerland	VME (ppm)	1000 ppm
Switzerland	Remark (CH)	(mittlere Molmasse 200–600)
Denmark	Grænseværdie (langvarig) (mg/m ³)	1000 mg/m ³
Denmark	Grænseværdie (kortvarig) (mg/m ³)	2000 mg/m ³
Denmark	Anmærkninger (DK)	(Polyethylenglycol (PEG) med middelmolvægt på 200-600)
Slovakia	NPHV (priemerná) (mg/m ³)	1000 mg/m ³
Slovakia	Upozornenie (SK)	krátkodobý: kategória II.

8.2. Exposure controls

Appropriate engineering controls	: Avoid creating mist or spray. Avoid splashing. Either local exhaust or general room ventilation is usually required. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Eyewash stations.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear suitable gloves resistant to chemical penetration. Use rubber gloves. EN 374.
Eye protection	: Chemical goggles or safety glasses. Face shield. EN 166.
Skin and body protection	: Wear suitable protective clothing. Impervious clothing. EN702.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Use an approved respirator equipped with oil/mist cartridges. . EN 12083.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Colour	: No data available
Odour	: Odourless.
Odour threshold	: No data available
pH	: < 1.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.

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Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 0 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous Polymerization may occur.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Strong caustics. Strong oxidizing agents. Strong reducing agents. Peroxides. Cyanides and sulfide salts. reactive metals. Aldehydes. ferrous metal. Halogenated compounds. The product may generate flammable gases by contact with nitrides. Phosphorus and metal phosphides. Nitromethane. Sodium borohydride. Azo compounds, expoxides. Fluorides. Mercaptans. Acetylides, Silicides, Carbides. Acid anhydrides.

10.6. Hazardous decomposition products

Thermal decomposition generates : Phosphorus oxides. Nitrogen oxides. ammonia. Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

Phosphoric acid (7664-38-2)	
LD50 oral rat	3500 mg/kg
LD50 dermal rat	> 1260 mg/kg
ATE (oral)	3500.000 mg/kg bodyweight
Polyethylene Glycol (25322-68-3)	
LD50 oral rat	47000 mg/kg
LD50 dermal rat	> 20000 mg/kg
ATE (oral)	47000.000 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity (single exposure) : Not classified (Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Phosphoric acid (7664-38-2)	
LC50 fishes 1	138 mg/kg 96 h Gambusia affinis
EC50 Daphnia 1	> 100 mg/l
Polyethylene Glycol (25322-68-3)	
LC50 fishes 1	> 100 mg/l
LC50 other aquatic organisms 1	1000 mg/l

12.2. Persistence and degradability

No additional information available

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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

"M-A" Stainless Steel Soldering Flux Liquid
PBT: not yet assessed
vPvB: not yet assessed

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.
EURLW code	: For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.
H code	: H8 - 'Corrosive': substances and preparations which may destroy living tissue on contact.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	: 1805
UN-No.(IATA)	: 1805
UN-No. (IMDG)	: 1805
UN-No.(ADN)	: 1805

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Phosphoric acid, solution
Proper Shipping Name (IATA)	: Phosphoric acid, solution
Proper Shipping Name (IMDG)	: PHOSPHORIC ACID SOLUTION
Proper Shipping Name (ADN)	: PHOSPHORIC ACID, SOLUTION
Transport document description (ADR)	: UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III, (E)

14.3. Transport hazard class(es)

Class (ADR)	: 8
Classification code (ADR)	: C1
Class (IATA)	: 8
Class (IMDG)	: 8
Class (ADN)	: 8
Classification code (ADN)	: C1

14.4. Packing group

Packing group (ADR)	: III
Packing group (IATA)	: III
Packing group (IMDG)	: III
Packing group (ADN)	: III

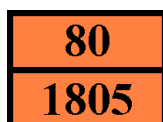
14.5. Environmental hazards

Other information	: No supplementary information available.
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14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.)	: 80
Classification code (ADR)	: C1
Orange plates	:



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

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14.6.2. Transport by sea

EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : A

14.6.3. Inland waterway transport

Carriage prohibited (ADN) : No

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

"M-A" Stainless Steel Soldering Flux Liquid is not on the REACH Candidate List

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

VOC content : 0 %

15.1.2. National regulations

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

Germany

Water hazard class (WGK) : 2 - hazardous to water

WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Revised format. Revised sections: 1 - 16.

Data sources

: ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at:
http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.

ESIS (European chemical Substances Information System; accessed at:
<http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.

European Chemicals Agency (ECHA) Registered Substances list. Accessed at
<http://echa.europa.eu/>. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE 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.

TSCA Chemical Substance Inventory. Accessed at
<http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

"M-A" Stainless Steel Soldering Flux Liquid

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Abbreviations and acronyms

: ACGIH (American Conference of Government Industrial Hygienists).
ATE: Acute Toxicity Estimate.
CAS (Chemical Abstracts Service) number.
CLP: Classification, Labelling, Packaging.
EC50: Environmental Concentration associated with a response by 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50: Lethal Dose for 50% of the test population.
OSHA: Occupational Safety & Health Administration.
PBT: Persistent, Bioaccumulative, Toxic.
PNEC: Predicted No Effect Level.
STEL: Short Term Exposure Limits.
TSCA: Toxic Substances Control Act.
TWA: Time Weight Average.

Other information

: None.

Full text of R-, H- and EUH-phrases::

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1B	skin corrosion/irritation Category 1B
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
R34	Causes burns.
C	Corrosive

"M-A" Stainless Steel Soldering Flux Liquid classification:

Skin Corr. 1B

☐ On basis of test data

☒ Calculation method

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LA-CO EU CLP SDS

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.