AL26

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First version: 2014-08-15

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

1.1 Product identifier

Trade name — **AL26 Aluminium Pickling Spray and Fluid**

Registration number (REACH) — not relevant (mixture)

CAS number — not relevant (mixture)

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

Relevant identified uses — Cleaning of Aluminium Surfaces

Uses advised against — Do not use for products which come into direct contact with the skin

1.3 Details of the supplier of the safety data sheet

Duralloy
PO Box 19,
Campbelltown NSW 2560 Australia

Phone: # 1300369456

e-mail (competent person) — sales@duralloy.net.au

1.4 Emergency telephone number

As above or next toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and category	Hazard state-ment
2.16	substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
3.1D	acute toxicity (dermal)	3	Acute Tox. 3	H311
3.2	skin corrosion/irritation	1A	Skin Corr. 1A	H314

Classification acc. to GHS				
Section	**Hazard class**	**Category**	**Hazard class and category**	**Hazard statement**
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318

for full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word danger

Pictograms

GHS05, GHS06

Hazard statements

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe gas/mist/vapours/spray.
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.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.

2.3 Other hazards

There is no additional information.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS

Name of sub-stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	M-Factors
phosphoric acid	CAS No 7664-38-2 EC No 231-633-2 REACH Reg. No 01-2119485924-24-xxxx	25 – < 50	Met. Corr. 1 / H290 Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318		
Hydrofluoric acid	CAS No 7664-39-3 EC No 231-634-8 Index No 009-003-00-1 REACH Reg. No 01-2119458860-33-xxxx	1 – < 5	Met. Corr. 1 / H290 Acute Tox. 2 / H300 Acute Tox. 1 / H310 Acute Tox. 2 / H330 Skin Corr. 1A / H314 Eye Dam. 1 / H318		

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Take off immediately all contaminated clothing.
In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Wash with plenty of soap and water.
Rub with a gel containing calcium gluconate.
Call a physician immediately. Causes poorly healing wounds.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contact lenses, if present and easy to do. Continue rinsing.
Rinse copiously with a calcium gluconate solution.

Following ingestion

Rinse mouth immediately and drink plenty of water.
Do NOT induce vomiting.
Call a physician immediately.

Notes for the doctor

none

4.2 Most important symptoms and effects, both acute and delayed

These information are not available.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.
Substance or mixture corrosive to metals.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Co-ordinate firefighting measures to the fire surroundings.
Do not allow firefighting water to enter drains or water courses.
Collect contaminated firefighting water separately.
Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

chemical protection suit, self-contained breathing apparatus (EN 133)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.
Ventilate affected area.
Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water.
Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advices on how to clean up a spill

Collect spillage.
Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

Appropriate containment techniques

Neutralisation techniques.
Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.
When diluting, always stir the product into standing water.

Specific notes/details

None.

Handling of incompatible substances or mixtures

Do not mix with alkali.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.
Wash hands after use.
Preventive skin protection (barrier creams/ointments) is recommended.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

frost

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
EU	orthophosphoric acid (phosphoric acid)	7664-38-2		IOELV		1		2	2000/39/EC
EU	hydrogen fluoride	7664-39-3		IOELV	1.8	1.5	3	2.5	2000/39/EC
GB	orthophosphoric acid	7664-38-2		WEL		1		2	EH40/2005

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
GB	hydrogen fluoride	7664-39-3	F	WEL	1.8	1.5	3	2.5	EH40/2005

Notation

F calculated as F (fluorine)

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
phosphoric acid	7664-38-2	DNEL	10.7 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
phosphoric acid	7664-38-2	DNEL	2 mg/m³	human, inhalatory	worker (industry)	acute - local effects
Hydrofluoric acid	7664-39-3	DNEL	1.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Hydrofluoric acid	7664-39-3	DNEL	2.5 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Hydrofluoric acid	7664-39-3	DNEL	1.5 µg/m³	human, inhalatory	worker (industry)	chronic - local effects
Hydrofluoric acid	7664-39-3	DNEL	2.5 mg/m³	human, inhalatory	worker (industry)	acute - local effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
Hydrofluoric acid	7664-39-3	PNEC	0.9 $^{mg}/_{l}$	freshwater
Hydrofluoric acid	7664-39-3	PNEC	0.9 $^{mg}/_{l}$	marine water
Hydrofluoric acid	7664-39-3	PNEC	51 $^{mg}/_{l}$	sewage treatment plant (STP)
Hydrofluoric acid	7664-39-3	PNEC	11 $^{mg}/_{kg}$	soil

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Hand protection

Material	Material thickness	Breakthrough times of the glove material
PVC: polyvinyl chloride	≥ 1,2 mm	>480 minutes (permeation: level 6)

Wear suitable gloves.
Chemical protection gloves are suitable, which are tested according to EN 374.
Check leak-tightness/impermeability prior to use.
In the case of wanting to use the gloves again, clean them before taking off and air them well.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection

ABEK-P3.

Environmental exposure controls

Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Form	fluid
Colour	red
Odour	acidic
Odour threshold	these information are not available

Other safety parameters

pH (value)	<1
Melting point/freezing point	these information are not available
Initial boiling point and boiling range	106 °C
Flash point	not applicable
Evaporation rate	these information are not available

Flammability (solid, gas)	not relevant (fluid)
Explosive limits	
Lower explosion limit (LEL)	these information are not available
Upper explosion limit (UEL)	these information are not available
Vapour pressure	these information are not available
Density	1.1 – 1.2 $^{g}/_{cm^3}$
Vapour density	these information are not available
Relative density	these information are not available
Solubility(ies)	
Water solubility	miscible in any proportion
Partition coefficient	
n-octanol/water (log KOW)	these information are not available
Auto-ignition temperature	these information are not available
Relative self-ignition temperature for solids	not relevant (Fluid)
Decomposition temperature	these information are not available
Viscosity	
Kinematic viscosity	these information are not available
Dynamic viscosity	these information are not available
Explosive properties	not explosive
Oxidising properties	shall not be classified as oxidising

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Substance or mixture corrosive to metals.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

bases, caustic solutions, metals (due to the release of hydrogen in an acid/alkaline medium)

10.6 Hazardous decomposition products

Phosphorus oxides (PxOy).
Hydrofluoric acid.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Harmful if swallowed.
Toxic in contact with skin.
GHS of the United Nations, annex 4: May be harmful if inhaled.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Classification procedure

The classification is based on an extreme pH value.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Skin sensitisation
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.
Respiratory sensitisation
Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
phosphoric acid	7664-38-2	EC50	>100 $^{mg}/_{l}$	daphnia magna	48 h
phosphoric acid	7664-38-2	ErC50	>100 $^{mg}/_{l}$	algae (Desmodesmus subspicatus)	72 h
Hydrofluoric acid	7664-39-3	EC50	48 $^{mg}/_{l}$	aquatic invertebrates	96 h

Aquatic toxicity (chronic)

Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Hydrofluoric acid	7664-39-3	NOEC	4 $^{mg}/_{l}$	rainbow trout (Oncorhynchus mykiss)	21 d

12.2 Persistence and degradability

Biodegradation

Anorganic product, is not eliminable from water by means of biological cleaning processes.

Persistence

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF
Hydrofluoric acid	7664-39-3	53 – 58

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

Remarks

Water hazard class - WHC (Wassergefährdungsklasse): 1 (Slightly hazardous to water)

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.
Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1	**UN number**	2922
14.2	**UN proper shipping name**	CORROSIVE LIQUID, TOXIC, N.O.S.
	Technical name (hazardous ingredients)	Hydrofluoric acid, PHOSPHORIC ACID
14.3	**Transport hazard class(es)**	
	Class	8
	Subsidiary risk(s)	6.1 (acute toxicity)
14.4	**Packing group**	II
14.5	**Environmental hazards**	non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	2922
Proper shipping name	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., (Hydrofluoric acid, PHOSPHORIC ACID, solution), 8 (6.1), II, (E)
Class	8
Classification code	CT1
Packing group	II
Danger label(s)	8+6.1

Special provisions (SP)	274, 802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2.
Tunnel restriction code (TRC)	E
Hazard identification No	86

Emergency Action Code	2X

International Maritime Dangerous Goods Code (IMDG)

UN number	2922
Proper shipping name	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S., (Hydrofluoric acid, PHOSPHORIC ACID, solution), 8 (6.1), II
Class	8
Subsidiary risk(s)	6.1
Packing group	II
Danger label(s)	8+6.1

Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	B

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	2922
Proper shipping name	UN2922, Corrosive liquid, toxic, n.o.s., (Hydrofluoric acid, PHOSPHORIC ACID, solution), 8 (6.1), II
Class	8
Subsidiary risk(s)	6.1
Packing group	II
Danger label(s)	8+6.1

Special provisions (SP)	A3, 274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

none of the ingredients are listed

List of substances subject to authorisation (REACH, Annex XIV)

none of the ingredients are listed

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

none of the ingredients are listed

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

SECTION 16: Other information

16.1 Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.2	Uses advised against: Do not use for squirting or spraying Do not use for products which come into direct contact with the skin	Uses advised against: Do not use for products which come into direct contact with the skin

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Comission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

Abbr.	Descriptions of used abbreviations
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Met. Corr.	Substance or mixture corrosive to metals
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin

Abbr.	Descriptions of used abbreviations
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).
International Maritime Dangerous Goods Code (IMDG).
Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.
Health hazards.
Environmental hazards.
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.

Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.