Compliation Date 13/7/2006 Revision 12/02/2020 Revision 5

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# SAFETY DATA SHEET

# **AUROFLUX SOLDERING FLUID**

# Section1: Identification of the substance/mixture and of the company/undertaking

# **1.1 Product identifier**

Product name:	AUROFLUX SOLDER FLUID
Product code:	9348A, 9349A1, 9349A, 9349B,

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

Auroflux is used as an aid to soldering and brazing, ie the joining of metals by heat.

# 1.3 Details of the supplier of the safety data sheet

Company Name:	Alisco Company
	PO Box 6166, Warwick CV34 9PN, UK
Tel:	(44) 01926 359930
Email:	sales@alisco.co.uk
Contact:	Lisa Wheeler
1.4 Emergency No:	+44 (0) 7775 523332 (office hours only)

# Section2:Hazards identification

# 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical HazardsNot classifiedHuman healthRepr. 1B – H360FDEnvironmentNot classifiedClassification (1999/45/EEC)Repr. Cat. 2;R60, R61The full Text for all R Phrases and Hazard statements are displayed in Section 16.

# 2.2. Label elements

Contains Borax Salt, Boric Acid, Di-Ammonium Hydrogen Phosphate, Sodium Fluorescein

Label in accordance with (EC) No. 1272/2008

[cont...]

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Signal words:	Danger	
Hazard statements:	H360FD:	May damage fertility or the unborn child if swallowed.
Precautionary statements:	P201: P202: P280: P261: P281: P308+313 P281:	Obtain special instructions before use. Do not handle until all safety precautions have been read & understood Wear protective clothing, gloves, eye and face protection. Avoid breathing vapour/spray. Use personal protective equipment as required If exposed or concerned: Get medical advice/attention. Use personal protective equipment as required.
Supplementary Precautionar Statements:	y P403+233 P501a	Store in a well ventilated place, keep container tightly closed. Dispose of contents/container in accordance with local, regional National and/or international regulations.
Supplemental label informati	ion RCH002	Restricted to professional users.
2.3. Other hazards		
Signal Words:	$\sim$	Toxic
Risk Phrases Safety Phrases	R60: R61 S53 S45	May impair fertility. May cause harm to the unborn child. Avoid exposure – obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice
Precautionary Phra	ises	immediately (show the label where possible) Restricted to professional users.
Other hazards: PBT:		Danger of serious damage to health by prolonged exposure. This product is not identified as a PBT/vPvB substance

#### **REACH** registered number(s): 01-2119490790-32-XXXX CAS number: 1303-96 04 **EC number**: 215-540-4 BORAX DECAHYDRATE <60% Synonyms:

[cont...]

Alisco Company, PO Box 6166, Warwick CV34 9PN sales@alisco.co.uk Tel. 01926 359930

# 3. Composition/information on ingredients (cont....d)

	TETRABORATE, BORAX
<b>REACH registered number(s):</b>	01-2119486683-25-XXXX
CAS number:	10043-35-3
EC No:	233-139-2
Synonyms:	BORIC ACID >20%
<b>REACH registered numbers(s):</b>	01-2119490974-22-XXXX
CAS number:	7783-28-0
EC number:	231-987-8
Synonyms:	DI-AMMONIUM HYDROGEN ORTHOPHOSPHATE >50%
CAS number:	518-747-8
EC number:	208-253-0
Synonyms:	SODIUM FLUORESCEIN <0.01%

SODIUM TETRABORATE DECAHYDRATE, DISODIUM

# **4. FIRST AID MEASURES**

# 4.1. Description of first aid measures

Skin contact:	Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.
	Consult a doctor
Eye contact:	Bathe the eye with running water for 15 minutes. Consult a doctor.
	Ingestion: Wash out mouth with water. Consult a doctor.
Inhalation:	Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a
	doctor.

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

Skin contact:	There may be mild irritation at the site of contact.	
Eye contact:	There may be redness and Irritation.	
Ingestion:	There may be irritation of the throat.	
Inhalation:	Dust in high concentrations may irritate the respiratory system.	
Delayed/ immediate effects: Delayed effects can be expected after long-term exposure.		

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

Immediate/ special treatment: Show this safety data sheet to the doctor in attendance.

# **5. FIRE-FIGHTING MEASURES**

# 5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used.

# 5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes. Borane/boron oxides.

[cont...d)

# 5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

# 6. ACCIDENTAL RELEASE MEASURES

# 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Evacuate the area immediately. Do not create dust.

# **6.2. Environmental precautions**

**Environmental precautions:** Do not discharge into drains or rivers. Alert the neighbourhood to the presence of fumes or gas.

# 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean-up should be dealt with only by qualified personnel familiar with the specific substance.

# **6.4. Reference to other sections**

Reference to other sections: Refer to section 8 of SDS.

# 7. HANDLING AND STORAGE

# 7.1. Precautions for safe handling

**Handling requirements**: Ensure there is sufficient ventilation of the area. Avoid the formation or spread of dust in the air.

# 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

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

PC14: Metal surface treatment products, including galvanic and electroplating products.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION



[cont...]

# 8.1. Control parameters

Workplace exposure limits: No data available.

# **DNEL/PNEC** Values

# DNEL (Workers):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
diammonium hydrogenorthophosphate Oral		Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 7783-28-0	Dermal	Non-applicable	Non-applicable	34.7 mg/kg	Non-applicable
EC: 231-987-8	Inhalation	Non-applicable	Non-applicable	6.1 mg/m <sup>3</sup>	Non-applicable

### **DNEL (General population):**

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
diammonium hydrogenorthophosphate Oral		Non-applicable	Non-applicable	2.1 mg/kg	Non-applicable
CAS: 7783-28-0	Dermal	Non-applicable	Non-applicable	20.8 mg/kg	Non-applicable
EC: 231-987-8	Inhalation	Non-applicable	Non-applicable	1.8 mg/m <sup>3</sup>	Non-applicable

### PNEC:

Identification				
diammonium hydrogenorthophosphate	STP	10 mg/L	Fresh water	1.7 mg/L
CAS: 7783-28-0	Soil	Non-applicable	Marine water	0.17 mg/L
EC: 231-987-8	Intermittent	17 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (Marine water)	Non-applicable

# **8.2. Exposure controls**

Engineering measures:	Ensure there is sufficient ventilation of the area.
<b>Respiratory protection:</b>	Self-contained breathing apparatus must be available in case of emergency.
Hand protection:	Protective gloves.
Eye protection: Safety glasses.	Ensure eye bath is to hand.
Skin protection:	Protective clothing.
Environmental:	Prevent from entering in public sewers or the immediate environment.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colour Odour Solubility		Clear liquid Green/Yellow Odourless Miscible with water		
pH-Value, Conc, Solution		6.0 - 8.0		
Flash Point 'C:		Non Flammable		
Viscosity:		No data available.		
Boiling point/range°C:		300 Melting point/range°C: 160		
Flammability limits %:	lower:	No data available.	upper:	No data available.
Part.coeff. n-octanol/water:		No data available.		
Autoflammability°C:		No data available.		
Vapour pressure:		3.5hPa at 20 degC		
Relative density:		1.44 pH: 5		
VOC g/l:		No data available.		

[cont...]

# **10. STABILITY AND REACTIVITY**

# 10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

# **10.2.** Chemical stability

Chemical stability:	Stable under normal conditions.
10.3. Possibility of hazardous reactions	
Hazardous reactions:	Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.
10.4. Conditions to avoid	indentais fisted below.
Conditions to avoid:	Water. Humidity.
10.5. Incompatible materials	
Materials to avoid:	Avoid contact with strong reducing agents such as metal hydrides, acetic anhydride or alkali metals.

# 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

# **11. TOXICOLOGICAL INFORMATION**

# 11.1. Information ontoxicological effects

**Relevant hazards for substance:** Hazard Route Basis **Reproductive toxicity** -- Hazardous: calculated

# Symptoms/ routes of exposure

Skin contact:	There may be mild irritation at the site of contact.
Eye contact:	There may be Irritation and redness.
Ingestion:	There may be irritation of the throat.
Inhalation:	Dust in high concentrations may irritate the respiratory system.
Delayed/ immediate effects:	Delayed effects can be expected after long-term exposure.
Other information:	Not applicable.

# **12. ECOLOGICAL INFORMATION**

# 12.1. Toxicity

**Ecotoxicity values:** 

In case of accident or if you feel unwell, seek medical advice immediately (show the product label where possible).

[cont...d]

Species	Test	Value	Units
Ptychocheilus lucius	96H LC50	279	mg/l
BLUEGILL (Lepomis macrochirus)	96H LC50	1021	mg/l
Daphnia magna	LC50 21 d	53.2	mg/l
Daphnia magna	48H EC50	133	mg/l

# 12.2. Persistence and degradability

**Persistence and degradability**: Boron is naturally occurring and ubiquitous in the environment. Borax decahydrate decomposes in the environment to natural borate.

# **12.3. Bioaccumulative potential**

Bioaccumulative potential: Not significantly Bio accumulative.

# 12.4. Mobility in soil

Mobility: The product is soluble in water and is leachable through normal soil.

# 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

# 12.6. Other adverse effects

Other adverse effects: No data available.

# **13. DISPOSAL CONSIDERATIONS**

# **13.1.** Waste treatment methods

Disposal operations:	Transfer to a suitable container and arrangefor collection by specialised disposal
	company.
<b>Recovery operations:</b>	Not applicable.
Disposal of packaging:	Arrange for collection by specialised disposal company. NB: The user's
	attention is drawn to the possible existence of regional or national
	Regulations regarding disposal.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal

# **14. TRANSPORT INFORMATION**

# This product is not regulated for transport (ADR/RID,IMDG,IATA)

14.1. UN number	UN number: N/A
14.2. UN proper shipping name	Not relevant
14.3. Transport hazard class(es)	Not relevant

# 14.4. Packing groupNot relevant14.5. Environmental hazardsEnvironmentally Hazardous Substance/Marine Pollutant - NO14.6. Special precautions for userEnvironmentally Hazardous Substance/Marine Pollutant - NO

Special precautions: Not relevant

14.7. Transport in bulk according to AnnexII of MARPOL73/78 and the IBC Code Transport in bulk: NOT APPLICABLE

# **15. REGULATORY INFORMATION**

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

Statutory Instruments	The Chemicals (Hazard Information and Packaging for Supply) Regulations
	2009 (S.I 2009 No. 716) Control of Substances Hazardous to Health.
Approved Code of Practice	Safety Data Sheets for Substances and Preparations. Classification and
	Labelling of substances and preparations dangerous for supply.
Guidance Notes	Workplace Exposure Limits EH40
EU Legislation	Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive
8	1999/45/EC. Regulation (EC) No 1907/2006 concerning
	the Registration, Evaluation, Authorisation and Restriction of Chemicals
	(REACH). Regulation (EC) No 1272/2008 on classification,
	labelling and packaging of substances and mixtures (CLP), amending and
	repealing Directives 67/548/EEC and 1999/45/EC, and
	amending Regulation (EC) No 1907/2006. Regulation (EC) No 790/2009
	amending, for the purposes of its adaptation to technical and
	scientific progress, Regulation (EC) No 1272/2008 of the European Parliament
	and of the Council on classification, labelling and
	packaging of substances and mixtures (CLP). Commission Regulation (EU) No
	453/2010 amending Regulation (EC) No 1907/2006 of the
	European Parliament and of the Council on the Registration, Evaluation,
	Authorisation and Restriction of Chemicals (REACH). Regulation
	(EC) No 286/2011 amending Regulation (EC) No 1272/2008 of the European
	Parliament and of the Council on classification, labelling and
	packaging of substances and mixtures (CLP).
Authorisations (Title VII Reg	
	for Authorisation substance: Boric acid Boric acid, disodium salt
<b>Restrictions (Title VIII Regu</b>	
	e Health Category 1. Restricted to professional users.
Water hazard classification	WGK 1

**15.2. Chemical Safety Assessment** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

# **16.OTHER INFORMATION**

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010. \* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H360FD: May damage fertility. May damage the unborn child.

[cont...]

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R60 May impair fertility. R61 May cause harm to the unborn baby.

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Legend to abbreviations: PNEC = predicted no effect level DNEL = derived no effect level LD50 = median lethal dose LC50 = median lethal concentration EC50 = median effective concentration IC50 = median inhibitory concentration dw = dry weight bw = body weight cc = closed cupoc = open cup MUS = mouse GPG = guinea pig RBT =rabbit HAM = hamster HMN = human MAM = mammal PGN = pigeon IVN = intravenous SCU = subcutaneous SKN = skin DRM = dermal OCC = ocular/corneal PCP = phycico-chemical properties

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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