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1. Substance / Preparation and Company Identification

1.1 Substance / preparation identification

1.1.1 Product name

Deoxidant liquid fluxes LI1 ECO, LI2 ECO, LI3 ECO.

1.2 Relevant identified uses of substance / preparation and uses advised against

1.2.1 Sector of use

SU3: Industrial uses: end uses of substances as such or of preparations at industrial sites.

1.2.2 Product category

PC38: Welding and soldering products(with flux coatings or flux cores), flux products.

1.3 Company identification

Company Name:	STELLA SRL
Address:	Via Marconi, 26
City and Country:	21041 ALBIZZATE (VA) - ITALY
Telephone no.:	+39 - 0331 - 985787
Fax no.:	+39 - 0331 - 985803
Web:	www.stella-welding.com
E-mail of person responsible of Safety Data Sheet:	info@stella-welding.com

1.4 Emergency phone number

+39 - 0331 - 985787


2. Hazards Identification

2.1 Classification according to European Regulation no. 1272/2008/EC

HAZARD CLASS:	Flam. Liq. 2; Acute Tox. 4; STOT SE 2
SIGNAL WORD:	Danger
HAZARD STATEMENT:	H225: Highly flammable liquid and vapour. H302+H312: Harmful if swallowed and in contact with skin. H371: May cause damage to organs.

2.2 Classification according to European Directives No. 67/548/EC and 1999/45/EC

CLASSIFICATION:	F; Xn
DANGER INDICATIONS:	Highly Flammable; Harmful
RISK PHRASES R:	R11: Highly flammable. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed. R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

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2.3 Label elements according to European Regulation no. 1272/2008/EC



GHS PICTOGRAM:

GHS02; GHS07; GHS08

SIGNAL WORD:

Danger

PRECAUTIONARY STATEMENT:

PREVENTION: P210: Keep away from heat/sparks/open flames/hot surfaces - No smoking.
P261: Avoid breathing vapours.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

RESPONSE: P301+P312: If swallowed: Call a poison center or doctor/physician if you feel unwell.
P309+P311: If exposed or you feel unwell: Call a poison center or doctor/physician.

STORAGE P403+P235: Store in a well ventilated place. Keep cool.

DISPOSAL: P501: Dispose of contents to approved waste disposal facility.

Contains:

Methanol, trimethylborate, ethanol.

2.4 Label elements according to European Directives No. 67/548/EC and 1999/45/EC



CLASSIFICATION:

F; Xn

DANGER INDICATIONS:

Highly Flammable; Harmful.

RISK PHRASES R:


R11: Highly flammable.
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

SAFETY PHRASES S:

S2: Keep out of the reach of children.
S7: Keep container tightly closed.
S16: Keep away from sources of ignition. No smoking.
S23: Do not breathe vapours.
S25: Avoid contact with eyes.
S36/37: Wear suitable protective clothing and gloves.

Contains:

Methanol, trimethylborate, ethanol.

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3. Composition / Information on ingredients

Substance	CAS No.	CE No.	Conc. %	Classification	
				1272/2008/EC	1999/45/EC
Methanol	67-56-1	200-659-6	C < 10	Flam. Liq. 2 H225 Acute Tox. 3 H331 Acute Tox. 3 H311 Acute Tox. 3 H301 STOS SE 1 H370	F R11 T R23/24/25 T R39/23/24/25
Trimethylborate	121-43-7	204-468-9	C < 80	Flam. Liq. 3 H226 Acute Tox. 4 H312	Xn R10; R21
Ethanol	64-17-5	200-578-6	C < 50	Flam. Liq. 2 H225	F R11

See Section 16. for complete description of R and HPhrases.

4. First Aid Measures

Inhalation:

Supply fresh air, supply artificial breathing if necessary. Seek medical advice if necessary.

Ingestion:

Seek medical advice immediately. Drink plenty of water.

Skin contact:

Remove contaminated clothing. Thoroughly wash person with plenty of water. Seek medical advice in case of irritation.

Eye contact:

Thoroughly wash eyes with plenty of water (15 minutes minimum), lifting the upper and lower eyelids. Seek medical advice.

Most important symptoms and effects:

Inhalation: harmful by inhalation; possible effects include: headache; vertigos; cough; sore throat.

Skin contact: irritation, burning sensations.


Eye contact: ache; irritation, burning sensations.

Ingestion: burning sensations, abdominal pain, headache, vertigos, nausea, vomit.

5. Fire Fighting measures

General information:

Keep product cool with water to avoid decomposition and generation of substances dangerous for health. Always wear complete fire-fighting equipment and respiratory masks. Collect water used for fire extinction and do not release it

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in drainage systems. Dispose of contaminated water used for fire extinction as per local laws and regulations.

Recommended fire-extinguishing means:

General means: carbon dioxide, foam, nebulized water.

Un-recommended fire-extinguishing means:

None.

Dangers arising from exposure in case of fire:

Avoid breathing combustion products.

Equipment:

Protective helmet, fireproof clothes, protective gloves (fireproof, cutproof and dielectric), respiratory mask with full face coverage.

6. Accidental Release Measures

Individual Measures:

Wear protective equipment. Keep non-equipped persons at a distance.

Environmental Precautions:

Avoid the product from being released in drainage systems, in superficial waters, in ground waters, in confined areas.

Drainage Methods:

Cover spilled materials with inert material (sand, earth) to absorb residues and transfer absorbed materials to closed container for subsequent disposal. Provide adequate ventilation. Avoid breathing vapours.

7. Handling and Storage

Handling:

Avoid breathing the liquid vapours. Use suitable gloves and clothes. Handle in a well ventilated place. Do not smoke, do not use open flames. Do not drink and/or eat.


Storage:

Store away from heat sources and in a well ventilated area. Keep containers tightly closed.

8. Exposure Controls / Personal Protection

8.1 Exposition Limit Values

Methanol:	TLV-TWA/8h:	262 mg/m ³ (skin)
	TLV-STEL/15 min:	338 mg/m ³ (skin)
Trimethylborate:	OEL-TWA:	2 mg/m ³
	OEL-STEL:	6 mg/m ³

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Ethanol: TLV-TWA/8h: 1300 mg/m³

8.2 Exposure Controls

BREATHING PROTECTION

In case of formation of vapours / aerosol, use adequate respiratory equipment (filter type P3).

HAND PROTECTION

Use appropriate gloves resistant to chemical agents.

EYES PROTECTION

Wear chemical goggles.

SKIN PROTECTION

Wear suitable light protection clothing.

CONTROL OF ENVIRONMENTAL EXPOSURE:

Comply with local standards and regulations regarding safeguard of environment.

9. Physical and Chemical Properties

Physical State: liquid
 Appearance: transparent, colourless/pinky liquid
 Odour: alcohol odour
 Boiling point: 65 °C (Methanol) / 68°C (trimethylborate) / 78°C (ethanol)

10. Stability and Reactivity

Product is stable in normal conditions of use and storage, anyway avoid contact with sources of ignition.

Materials to avoid:

Acid halogens, alkali metals, alkaline-earth metals, oxidative agents, halogens.

Conditions to avoid:

Heat; flames and sparks.


11. Toxicological Information

Acute Toxicity:

LD/LC50 values regarding the classification:

Component	CAS No.	Method	Value	Unit
Methanol	67-56-1	LD50-rat (oral)	1187-2769	mg/kg
		LC50-rat (inhalation)	128,2	mg/l (4 hours)
		LD50-rabbit (cutaneous)	> 17000	mg/kg

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Trimethylborate	121-43-7	LD50-rat (oral) LD50-rabbit (cutaneous)	> 2000 1980	mg/kg mg/kg
Ethanol	64-17-5	LC50-rat (inhalation) LDL-rabbit (cutaneous)	5,9 20000	mg/l (6 h) mg/kg

12. Ecological Information

Comply with the proper precautions to avoid environmental damages caused by the use of this product. This product shall not enter in sewers or surface drains.

Component	Method	Species	Value	Unit
Methanol	LC50	fish	15400 - 24900	mg/l (96 hours)
	CE50	Daphnia	> 10000	mg/l (48 hours)
	CI50	Alga	ca. 22000	mg/l (72 hours)

13. Disposal Considerations

Residues of product have to be considered as special, dangerous waste. Disposal of product should be performed by authorized waste-management companies, complying with local rules and legislation.

14. Transport Information

LAND (ADR / RID):


Class: 3
UN Number: 1993
Packaging group: II
Name: Flammable liquid, N.O.S.

SEA (IMDG):

Class: 3
UN Number: 1993
Packaging group: II
Name: Flammable liquid, N.O.S.

AIR (IATA-ICAO):

Class: 3
UN Number: 1993
Packaging group: II
Name: Flammable liquid, N.O.S.

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15. Regulatory Information

N/A.

16. Other Information

Complete description of Risk Phrases cited in section 3. of this Safety Data Sheet.

H226: Flammable liquid and vapour.
 H312: Harmful in contact with skin.
 H225: Highly flammable liquid and vapour.
 H331: Toxic if inhaled.
 H311: Toxic in contact with skin.
 H301: Toxic if swallowed.
 H370: Causes damage to organs.

 R10: Flammable.
 R11: Highly flammable.
 R21: Harmful in contact with skin.
 R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
 R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

REVISIONS:

This document supersedes the document rev. no. 02/09 dated 20 February 2009.

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5. The Merck Index. Ed. 10
6. Handling Chemical Safety
7. NIOSH - Registry of Toxic Effects of Chemical Substances
8. INRS - Fiche Toxicologique
9. Patty - Industrial Hygiene and Toxicology
10. N.I. Sax - Dangerous properties of Industrial Materials-7 Ed., 1989

Note for user:

Information contained in this Data Sheet are based on the knowledge available to us at the date of last document revision. Users should verify the suitability and completeness of information with regard to specific use of the product. No data contained in this Data Sheet may be regarded as an assurance of any particular specific property of product. As end use of product is not under our direct control, it is the user's responsibility to fully comply with laws and regulations applicable in safety and hygiene. We do not take any responsibility for any un-proper use of product.