MATERIAL SAFETY DATASHEET

1/ Product Identification:

1.1 Product name: Ethanol Blend IDA99 (IMS99)

REACH number 01-2119457610-43-XXXX

1.2 Identified Use: Solvent for Histology Laboratories

1.3 Supplier:
Genta Medical
Unit 17D Marston Business Park
Tockwith
North Yorkshire YO26 7QF.
Tel: 01423 358 128
Fax: 01423 358 126
email: info@genta-medical.co.uk

1.4 Emergency telephone 01423 358 128 (office hours)

2/ Hazard identification (CLP)

2.1 Product Identification: Ethanol Blend.

2.1.1 Classification of the substance or mixture according to Regulation (EC) No1272/2008

Flam. Liq. 2; H225 Highly flammable liquid and vapour
Eye Irrit. 2; H319 Causes serious eye irritation
STOT SE 2; H371 May cause damage to organs

2.1.2 Hazard Identification (CHIP 4)

F; R11 Highly flammable

See section 16 for full text of phrases.

2.2 Label elements

SIGNAL WORD - DANGER
Hazard statement(s)

H225 Highly flammable liquid and vapour
H319 Causes serious eye irritation
H371 May cause damage to organs

Precautionary statement(s)

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P243	Take precautionary measures against static discharges.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P309+P311	If exposed or if you feel unwell: call a POISON CENTRE or doctor/physician.
P403+P235	Store in a well ventilated place. Keep cool.

Special packaging requirements: Child resistant fastenings and tactile warnings not required as the product is not for sale to the general public.

2.3 Other hazards: Vapours may form explosive mixtures with air. Vapours may spread long distances and ignite. Irritating to eyes.

3/ Composition

3.1 Composition of Mixture: Ethanol and methanol blend

Ingredient	Conc	CHIP Phrases	CLP Classification
Ethanol 01-2119457610-43-XXXX CAS 64-17-5 EC 200-578-6 (Substance)	>95 %	**F: R11**	**Flam. Liq. 2; H225** **Eye Irrit. 2; H319**
Methanol 01-2119433307-44-XXXX CAS 67-56-1 EC 200-659-6 (substance)	<5%	**F: R11** **T: R23/24/25** **R39/23/24/25**	**Flam Liq 2: H225** **Acute Tox 3: H301 H311 H331** **STOT SE1: H370**

Occupational exposure limits - see section 8. Full R and H statements – see section 16

4/ First Aid Measures

4.1 Description of first aid measures.

First Aiders: Trained first aiders only. Do not take any action if it involves personal risk, especially risk from contamination with the chemical through air, contact or artificial respiration.

General Advice: Take off all contaminated clothing immediately.
Inhalation: Move victim to fresh air.
Skin contact: Wash off immediately with plenty of water.
Eye contact: Immediately flush eyes with plenty of water. If eye irritation persists consult a specialist.
Ingestion: Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. If swallowed seek medical advice immediately and show this container or label. .

4.2 Most important symptoms: Irritant effect..

4.3 Indication of immediate medical attention / special treatment

For specialist advice physicians should contact the poisons information centre.

5/ Firefighting measures.

5.1/ Extinguishing Media -

Water spray/fog, alcohol-resistant foam, dry powder or CO2. Do not use water jets. Cool containers with water spray.

5.2/ Special hazards

Highly flammable

Flash back possible over considerable distance.

When fighting fires in enclosed spaces, danger of suffocation.

In case of fire may be liberated: Carbon monoxide and carbon dioxide

5.3/ Advice for fire-fighters

Special protective equipment for fire-fighters: Wear a self contained breathing apparatus and chemical protective clothing. Use water spray to cool unopened containers. Do not allow run off to enter drains or water courses. Residues and contaminated water must be disposed in accordance with local regulations.

6/ Accidental release measures (Spillage).

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition – no smoking

6.2 Environmental precautions

Do not allow to enter drains, surface waters, basements or pits

Do not allow to contaminate ground water or subsoil.

When released into the environment, alert police and fire brigade

6.3 Methods and material for containment and cleaning up

Absorb leftover product with non-flammable liquid-binding material (e.g. earth, sand, vermiculite or ground sand stone) and place in closed containers for disposal according to local/national regulations.

6.4 Reference to other sections

See section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See section 13 for additional waste treatment information.

7/ Storage and handling.

7.1/ Precautions for safe handling

Advice on protection against fire or explosion: keep away from sources of ignition – no smoking. Take precautionary measures against static discharges. Use only explosion proof equipment.

Temperature class T2

Fire fighting class: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperature.

7.2/ Storage

Keep container tightly closed in a cool, well ventilated place.

7.3/ Specific end uses:

Use as a histological solvent, pack size is no more than 5 litres.

8/ Exposure control

8.1 Control Parameters

Ethanol:
Great Britain: WEL-TWA 8 hours 1000 ppm
Methanol
Great Britain: WEL-STEL 250 ppm
Great Britain: WEL-TWA 8 hours 200ppm

DN(M)EL/PNEC & DN(M)EL's (ethanol)

Exposure	Value	Population	Effects
Long term inhalation	950 mg/m3	Workers	Chronic
Dermal	343 mg/kg	Workers	Chronic
Inhalation	1900 mg/m3	Workers	Acute
Long term inhalation	114 mg/m3	Consumers	Chronic
Inhalation	950 mg/m3	Consumers	Acute
Dermal	206 mg/kg	Consumers	Chronic
Long term oral	87 mg/kg	Consumers	Chronic

DN(M)EL/PNEC & DN(M)EL's (methanol)

Exposure	Value	Population	Effects
Long term inhalation	260 mg/kg (200ppm)	Workers	Chronic
Dermal	40mg/kg	Workers	Acute
Dermal	40mg/kg	Workers	Chronic
Inhalation	260 mg/kg (200ppm)	Workers	Acute
Long term inhalation	50 mg/m3	Consumers	Chronic
Inhalation	50 mg/m3	Consumers	Acute
Dermal	8 mg/kg	Consumers	Acute
Dermal	8mg/kg	Consumers	Chronic
Oral	8mg/kg	Consumers	Acute
Long term oral	8 mg/kg	Consumers	Chronic

Predicted No Effect Concentrations (PNEC): ethanol

PNECwater (freshwater) = 0.96 mg/l
PNECwater (marine water) = 0.79 mg/l
PNECsediment(freshwater) = 3.6 mg/kg
PNECsoil = 0.63 mg/kg

Predicted No Effect Concentrations (PNEC): methanol

PNECwater (freshwater) = 154 mg/l
PNECwater (marine water) = 15.4 mg/l
PNECsediment(freshwater) = 570.4 mg/kg
PNECsoil = 23.5 mg/kg

8.2 Exposure controls:

Appropriate engineering controls: Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures: Take off immediately all contaminated clothing.

Eye protection: Tightly-fitting safety goggles.

Hand protection: The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).
Gloves suitable for permanent contact: Material: butyl-rubber. Break through time: >= 480 min. Material thickness: 0.5 mm. Material: Fluorinated rubber. Break through time: >= 480 min. Material thickness: 0.4 mm
Gloves suitable for splash protection: Material: Polychloroprene. Break through time: >= 120 min. Material thickness: 0.5 mm
Natural rubber/natural latex, Nitrile rubber/nitrile latex may be unsuitable unless they comply with standard EN374/3. (Check with your glove supplier).
Body Protection Use suitable protective equipment
Other Skin protection Suitable protective footwear
Respiratory protection: Do not breathe vapours or spray/mist. No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141
Environmental exposure controls General advice: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. Do not allow material to contaminate ground water system.

9/ Physical / Chemical properties

9.1 Basic physical & chemical properties

Appearance	Liquid
Colour	Colourless, clear
Odour	alcoholic
Boiling point/boiling range	75 - 78°C
Melting point/melting range	-114°C
Flash point	12°C (c.c.)
Autoignition temperature	363°C
Lower explosion limit	3.5 vol %
Upper explosion limit	15 vol %
Refraction index at 20°C:	1.361
Vapour pressure at 20°C:	58 hPa
Density at 20°C:	0.8 g/ml
Water solubility at 20°C:	Fully miscible
Partition coefficient n-octanol/water	-0,35 log P(o/w)
Viscosity, dynamic At 20°C:	1.19 mPas

9.2 Other information

None

10/ Stability and reactivity

10.1 Reactivity: Vapours may form explosive mixtures with air.
10.2 Chemical stability: Stable under normal conditions.
10.3 Hazardous reactions: Stable under normal conditions of use. Vapours may form explosive mixtures with air.
10.4 Conditions to avoid: Keep away from heat and flames. Extremes of temperature. Direct sunlight.
10.5 Incompatible materials: Alkali metals. Acetic anhydride.
10.6 Hazardous decomposition products: None known.

11/ Toxicological information.

11.1 Information on toxicological effects: ethanol.

Acute Oral Toxicity
LD50 Rat >2000 mg/kg bw.
Acute Dermal Toxicity
LD50 Rabbit >2000 mg/kg bw.

Skin corrosion/irritation: Not irritating (Rabbit).
Mutagen: Not a mutagen.
Further information No data.

Information on toxicological effects: methanol.
Acute Oral Toxicity
LD50 Rat >2000 mg/kg bw.
Acute Dermal Toxicity
LD50 Rabbit >2000 mg/kg bw.
Inhalation
LC50>20mg/l 4hr rat.
Skin corrosion/irritation: Irritating (Rabbit).
Eye irritation: Irritating (Rabbit)
Respiratory/skin sensitizer: Not sensitizing.
Mutagen: Not a mutagen.
Further information No data.

12/ Ecological information.

12.1 Toxicity

Ethanol; ethyl alcohol
Toxicity to fish: LC50: > 100 mg/l, 48 h, Leuciscus idus, static test, OECD Test Guideline 203, GLP: no, (literature value)
Toxicity to daphnia and other aquatic invertebrates: EC50: > 100 mg/l, 24 h, Daphnia magna, static test, OECD Test Guideline 202, GLP: yes, (literature value)
Toxicity to algae: EC50: > 100 mg/l, Chlorella pyrenoidosa, static test, OECD Test Guideline 201, GLP: no, (literature value)

Methanol
Toxicity to fish: LC50: >100 mg/l, 96h, Salmo gairdneri, semi-static test, literature value)
Toxicity to daphnia and other aquatic invertebrates: EC50: > 100 mg/l, 48 h, Daphnia magna, static test, (literature value)
Toxicity to algae: EC50: > 100 mg/l, 8 d, Scenedesmus quadricauda, static test, (literature value)**12.2 Persistence and degradability** -
aerobic, > 70 %, Result: Readily biodegradable., Exposure time: 10 d, content 7 mg/l.

12.2 Persistence and degradability

Components
ethanol; ethyl alcohol
Biodegradability: aerobic, > 70 %, Result: Readily biodegradable., Exposure time: 5 d, OECD Test Guideline 301 D, GLP: no, (literature value)
methanol
Biodegradability: aerobic, > 60 %, Result: Readily biodegradable., Exposure time: 5 d, activated sludge of a predominantly domestic sewage, OECD Test Guideline 301 D, GLP: no

12.3 Bio accumulative potential

Components
ethanol; ethyl alcohol
Bioaccumulation: No bioaccumulation is to be expected (log Pow <= 4).
methanol
Bioaccumulation: No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil

Components
ethanol; ethyl alcohol
Mobility: No information available
methanol
Mobility: No information available

12.5 Results of PBT and vPvB assessment
Components
ethanol; ethyl alcohol
Assessment: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
methanol: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB)

12.6 Other adverse effects
Components
ethanol; ethyl alcohol
Chemical Oxygen Demand (COD): ca. 1,700 mg/g, Directive 84/449/EEC, C.9, GLP: no data
Additional ecological information: No data available
methanol
Additional ecological information: In the range of water solubility not toxic under test conditions

13/ Disposal considerations.

13.1 Waste treatment methods: Can be incinerated when in compliance with local regulations.
Contaminated packaging Recommendation: Dispose of waste according to applicable legislation.
Handle contaminated packages in the same way as the substance itself.
Non-contaminated or reconditioned packages may be recycled.

14/ Transport information

14.1 UN Number 1170
14.2 Proper shipping name: ETHYL ALCOHOL
14.3 UN Hazard Class 3,
14.4 Packing Group II
14.5 Environmental Hazard No
14.6 Special Precautions None
Tunnel Restriction Code (D/E)
Hazard Information Number / Kemler code 33 UK Hazchem 2YE
Marine Pollutant: No.
14.7 Transport in Bulk Not applicable.

15/ Regulatory information

15.1 Applicable regulations:

- EC No. 1907/2006 REACH
- EC No. 1272/2008 CLP
- Highly flammable liquid regulations 1972
- Health & Safety at Work Act 1974
- Control of Substances Hazardous to health Regulations 1988.
- Carriage of dangerous goods by road & rail (classification and labelling) Regulations 1994.

15.2 Chemical safety assessment has been carried out for this substance.

16/ Other information

Full text of R Phrases referred to under sections 2 and 3

R11: Highly flammable.
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.

Full text of H-Statements referred to under sections 2 and 3

H225: Highly flammable liquid and vapour.
H301: Toxic if swallowed.
H311: Toxic in contact with skin.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H370: Causes damage to organs.
H371: May cause damage to organs.

Disclaimer:
This information relates only to the specific material designated and as such may not be valid for such material used in a combination with other materials or processes. The information is believed to be accurate but is without warranty. Genta Medical is not liable for any injury or loss which may result from inappropriate use of the product.

This datasheet replaces version 2.0. The change is: compliance with CLP regulation.