

15. REGULATORY INFORMATION**LABELLING**

Highly Flammable



Harmful

RISK PHRASES

- 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

- S1/2 Keep locked up and out of the reach of children
S7 Keep container tightly closed
S16 Keep away from sources of ignition - No smoking
S25 Avoid contact with eyes
S36/37 Wear suitable protective clothing and gloves
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

STATUTORY INSTRUMENTS

Control of Substances Hazardous to Health. Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.
Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

CHIP for everyone HSG(108). Workplace Exposure Limits EH40.

16. OTHER INFORMATION**GENERAL INFORMATION**

This safety data sheet covers all codes for this product.

REVISION COMMENTS

8h TWA (Time-Weighted Average) replaces Long-Term Exposure Limit (LTEL)

Methanol limits adjusted

REVISION DATE 06-2009

REV. NO. / REPL. SDS GENERATED 5 / 03-2009

RISK PHRASES IN FULL

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

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5. FIRE-FIGHTING MEASURES**EXTINGUISHING MEDIA**

Use: Alcohol resistant foam. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

UNUSUAL FIRE & EXPLOSION HAZARDS

May travel considerable distance to source of ignition and flash back.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SPECIFIC METHOD(S) OF FIRE FIGHTING

Use water spray to cool fire-exposed containers.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Wear protective clothing as described in Section 8 of this safety data sheet.

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush area with water.

7. HANDLING & STORAGE**USAGE PRECAUTIONS**

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Risk of vapour concentration on the floor and in low-lying areas. Static electricity and formation of sparks must be prevented.

STORAGE PRECAUTIONS

Store in tightly closed original container in a cool, dry well-ventilated place.

STORAGE CLASS

Flammable liquid storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std	8h TWA		STEL	
METHANOL	WEL (skin)	200 ppm	260 mg/m ³	250 ppm	310 mg/m ³
ETHANOL	WEL	1000 ppm	1900 mg/m ³		

WEL – Workplace Exposure Limit; 8h TWA – 8-hour Time-Weighted Average; STEL – Short-Term EL.

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Well-ventilated area. Provide explosion proof ventilation for high concentrations.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION

For prolonged or repeated skin contact use suitable protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Brown Liquid
ODOUR	Odour of alcohol
SOLUBILITY	Soluble in water.
BOILING POINT	~ 78°C 760 mm Hg
RELATIVE DENSITY	~ 0.8 @ 20°C
FLASH POINT	~ 13°C

10. STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidisers.

11. TOXICOLOGICAL INFORMATION

INHALATION

Solvent vapours are hazardous and may cause nausea, sickness and headaches. Central nervous system depression.

INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting. Drowsiness, dizziness, disorientation, vertigo.

SKIN CONTACT

Prolonged or repeated contact leads to drying of skin.

EYE CONTACT

Spray and vapour in the eyes may cause irritation and smarting.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

The product is not expected to be hazardous to the environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION



IMDG

UN#	1170
Class	3
PG	II
Proper shipping name:	Ethanol Solution
Marine Pollutant:	No

RID / ADR

UN#	1170
Class	3
PG	II
Proper shipping name:	Ethanol Solution

IATA

UN#	1170
Class	3
PG	II
Proper shipping name:	Ethanol Solution

15. REGULATORY INFORMATION**LABELLING**

Highly Flammable



Harmful

RISK PHRASES

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SAFETY PHRASES

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GUIDANCE NOTES

CHIP for everyone HSG(108). Workplace Exposure Limits EH40.

16. OTHER INFORMATION**GENERAL INFORMATION**

This safety data sheet covers all codes for this product.

REVISION COMMENTS

8h Time-Weighted Average (8h TWA) replaces Long Term Exposure Limit (LTEL)
Methanol Limits adjusted

REVISION DATE 06-2009

REV. NO. / REPL. SDS GENERATED 5 / 07-2008

RISK PHRASES IN FULL

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
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
R36/37/38	Irritating to eyes, respiratory system and skin

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION & COMPANY

Product Name SHEPARD'S STAIN REAGENT B (Acidified Iron III Chloride)

Product Code 61036b

Supplier Clin-Tech Limited
 Unit G, Perram Works
 Merrow Lane
 Guildford, Surrey
 GU4 7BN
 UNITED KINGDOM

Telephone 01483 301902
Fax 01483 301907
e-mail / Website Info@clin-tech.co.uk / www.clin-tech.co.uk

2. COMPOSITION / INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
HYDROCHLORIC ACID	231-595-7	7647-01-0	1-5%	C; R34 Xi; R37
IRON (III) CHLORIDE HEXAHYDRATE	231-729-4	10025-77-1	1-5%	Xi; R36/38

The Full Text for all R-Phrases are Displayed in Section 16

3. HAZARDS IDENTIFICATION**CLASSIFICATION**

This product has no Hazard Classification.

4. FIRST-AID MEASURES**INHALATION**

Not relevant.

INGESTION

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Get medical attention if any symptoms occur.

SKIN CONTACT

Wash skin with soap and water. Get medical help if symptoms occur.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any symptoms occur.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use fire-extinguishing media appropriate for surrounding materials.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet.

SPILL CLEAN UP METHODS

Absorb in vermiculite, dry sand or earth and place into containers. Flush area with water.

7. HANDLING & STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS

Store in tightly closed original container in a cool, dry well-ventilated place.

STORAGE CLASS

Chemical storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std	8h TWA		STEL	
HYDROCHLORIC ACID	WEL	1 ppm		5 ppm	
IRON III CHLORIDE HEXAHYDRATE	WEL		1 mg/m ³		2 mg/m ³

WEL – Workplace Exposure Limit; 8h TWA – 8-hour Time-Weighted Average; STEL – Short-Term EL.

PROTECTIVE EQUIPMENT



HAND PROTECTION

For prolonged or repeated skin contact use suitable protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Yellow Liquid
ODOUR	None
SOLUBILITY	Soluble in water.
BOILING POINT	~ 100°C 760 mm Hg
RELATIVE DENSITY	~ 1.0 @ 20°C
FLASH POINT	N/A

10. STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions and recommended use.

11. TOXICOLOGICAL INFORMATION**INHALATION**

No specific health warnings noted.

INGESTION

May cause discomfort.

SKIN CONTACT

Prolonged or repeated exposure may cause irritation.

EYE CONTACT

Prolonged contact may cause transient irritation.

12. ECOLOGICAL INFORMATION**ECOTOXICITY**

The product is not expected to be hazardous to the environment.

13. DISPOSAL CONSIDERATIONS**DISPOSAL METHODS**

Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

15. REGULATORY INFORMATION**RISK PHRASES**

NC Not classified

SAFETY PHRASES

S25 Avoid contact with eyes
S36/37 Wear suitable protective clothing and gloves

STATUTORY INSTRUMENTS

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REVISION DATE 06-2009

REV. NO. / REPL. SDS GENERATED 4 / 07-2008

RISK PHRASES IN FULL

R34 Causes burns
R37 Irritating to respiratory system
R36/38 Irritating to eyes and skin