



Hain Lifescience GmbH
Hardwiesenstr. 1
72147 Nehren
Deutschland
www.hain-lifescience.de

SAFETY DATA SHEET: BSDS07

Language	EN
Revision No.:	1
Date:	2018-08-14

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

1.1.1 Component Name	1.1.2 Code
Wash Buffer I (Blood DNA) (Component Number 5.23)	Kit Components: Bullet Blood DNA 50, Product code 2.11.03
Wash Buffer II (Blood DNA) (Component Number 5.24)	Kit Components: Bullet Blood DNA 50, Product code 2.11.03
Cartridges for the Blood DNA isolation procedure	Kit Components: GXT Blood 500 Extraction Kit, Product code 12.05.02

The information included in this safety data sheet exclusively refers to the components mentioned in point 1.1.1

Chemical denomination

Solution containing a mixture of Ethanol and Sodium Perchlorate

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

Intended Use:

Laboratory reagents for in vitro diagnostics

1.3 Details of the supplier of the safety data sheet

Manufacturer:

Hain Lifescience GmbH
Hardwiesenstr. 1
72147 Nehren
Deutschland
Tel: +49 (0) 74 73- 94 51- 0
www.hain-lifescience.de

Responsible Person:

msds@hain-lifescience.de

1.4 Emergency telephone number

European emergency number: 112

United Kingdom of Great Britain and Northern Ireland

National Poisons Information Service (Birmingham Unit)
City Hospital
Dudley Rd
Birmingham
National Poisons Information Service Edinburgh
Scottish Poisons Information Bureau
Royal Infirmary
51 Little France Crescent
Edinburgh
Emergency number: 999

Telephone number: +44 121 507 4123
Emergency telephone number: 844 892 0111
Fax: +44 121 507 55 88 **E-mail:** mail@npis.org

Telephone number: +44 131 242 1383
Emergency telephone number: 844 892 0111
Fax: +44 131 242 13 87 **E-mail:** spib@luht.scot.nhs.uk

Ireland

Poisons Information Centre of Ireland
Beaumont Hospital
PO Box 1297
Dublin
Emergency number: 999

Telephone number: +353 1 809 25 66
Emergency telephone number:
+353 1 837 9964 (medical professionals)
+353 1 809 2166 (public)
Fax: +353 1 836 84 76 **E-mail:** npicdublin@beaumont.ie

The Netherlands

National Poisons Information Centre, The Netherlands
University Medical Centre Utrecht
Postbus 85500
Utrecht

Telephone number: +31 88 755 85 61
Emergency telephone number: +31 30 274 88 88
Fax: +31 30 254 15 11 **E-mail:** nvic@umcutrecht.nl



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Malta

Mater Dei Hospital
Msida MSD 2090
MALTA

Telephone number: 2545-0000
Fax: 2545 4154 E-mail: mdh@gov.mt

Australia

NSW Poisons Information Centre
Childrens Hospital Westmead
Hawkesbury Road
Sydney

Telephone number: +61 2 9845 3969
Emergency telephone number: 131126 (national calls)
Fax: +61 2 9845 3597 E-mail: www.poisonsinfo.nsw.gov.au

South Africa

Tygerberg Poison Information Centre
Division of Pharmacology, Department of Medicine
Faculty of Health Sciences
Tygerberg Campus
Stellenbosch University
Tygerberg

Telephone number: +27 21 938 95 96
Emergency telephone number: +27 21 931 6129
Fax: +27 21 938 91 22 E-mail: caw@sun.ac.za

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.


2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

REGULATION (EC) No 1272/2008
Flammable Liquid (category 2) H225

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

REGULATION (EC) No 1272/2008	
SIGNAL WORD:	Danger
SYMBOLS / PICTOGRAMS:	 GHS02
HAZARD STATEMENTS:	H225 Highly Flammable liquid and vapour
PRECAUTIONARY STATEMENTS:	P210 Keep away from heat / sparks / open flames / hot surfaces. No smoking. P280 Wear protective gloves / protective clothing / eye protection / face protection. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.



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2.3 Other hazards

None

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

N.A. for mixture

3.2 Mixtures

Contains:

Ethanol and Sodium Perchlorate

CAS No.	CE No.	Index No.	Concentration	Classification Reg. 1272/2008 (pure substance)
64-17-5	200-578-6	603-002-00-5	20-30%	Flam. Liq. 2 H225,
7601-89-0	231-511-9	017-010-00-6	15-20%	Ox. Sol. 1 H271, Acute Tox. 4 H302

Refer to §16 for complete text of risk phrases, hazard indication and class.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

EYES: Remove contact lenses, if present Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2 Most important symptoms and effects, both acute and delayed

For symptoms and effects caused by the contained substances, see chap. 11.

4.3 Indication of any immediate medical attention and special treatment needed

Information not available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use water.

5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3 Advice for firefighters

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.



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SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

FOR LIQUID PRODUCTS:

Block the leakage if there is no hazard.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2 Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and material for containment and cleaning up

FOR LIQUID PRODUCTS: Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

6.4 Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3 Specific end uses

The mixtures are intended specifically for in vitro use, for the examination of samples of human origin. Handle in accordance with good laboratory practice, while also considering the risks deriving from the materials under analysis.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Regulatory References:

United Kingdom	EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Éire	Code of Practice Chemical Agent Regulations 2011.
OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
TLV-ACGIH	ACGIH 2012



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Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV	GR	1900	1000			
MAK	A	1900	1000	3800	2000	
TLV	B	1907	1000			
TLV	BG	1000				
TLV	CZ	1000		3000		
AGW	D	960	500	1920	1000	
MAK	D	960	500	1920	1000	
TLV	DK	1900	1000			
VLA	E	1910	1000			
TLV	EST	1000	500	1900	1000	
HTP	FIN	1900	1000	2500	1300	
WEL	UK	1920	1000			
AK	H	1900		7600		
GVI	HR	1900	1000			
MDK	HR	1900	1000			
RD	LT	1000	500	1900	1000	
RV	LV	1000				
TLV	N	950	500			
OEL	NL	260		1900		SKIN
TLV	S	1000	500	1900	1000	
NPHV	SK	960	500	1920		
VLEP	F	1900	1000	9500	5000	
OEL	IRL				1000	
TLV-ACGIH				1884	1000	
PEL	US	1900	1000			

8.2 Exposure controls

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration. Personal protection equipment must comply with the rules in force indicated below.

HAND PROTECTION

Protect hands work gloves. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

EYE PROTECTION

Wear protective goggles

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by the IVD processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Information for the pure substance: Ethanol

PROPERTY	DATA
APPEARANCE:	Liquid
ODOR:	Characteristic
ODOR THRESHOLD:	Not available
PH:	7.0 at 20°C
MELTING POINT/FREEZING POINT	-114°C
INITIAL BOILING POINT AND BOILING RANGE	78°C
FLASH POINT:	12°C (closed cup)
EVAPORATION RATE	Not available



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PROPERTY	DATA
FLAMMABILITY (SOLID, GAS):	Not available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	lower explosion limit: 3.1 vol% 59g/m ³ Upper explosion limit: 27.7 vol % 532g/m ³
VAPOR PRESSURE:	58 mbar at 20°C
VAPOR DENSITY:	1.59
RELATIVE DENSITY:	0.79g/cm ³ at room temperature
SOLUBILITY(IES):	Soluble
PARTITION COEFFICIENT (N-OCTANOL/WATER):	log Kow: -0.3
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not available
EXPLOSIVE PROPERTIES:	Vapours form explosive mixtures with air.
OXIDIZING PROPERTIES:	Not available

Information for the pure substance: Sodium perchlorate

PROPERTY	DATA
APPEARANCE:	Solid
ODOR:	Odourless
ODOR THRESHOLD:	Not available
PH:	4.5-7 at 25°C
MELTING POINT/FREEZING POINT	Not available
INITIAL BOILING POINT AND BOILING RANGE	Not available
FLASH POINT:	Not available
EVAPORATION RATE	Not available
FLAMMABILITY (SOLID, GAS):	Not available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	Not available
VAPOR PRESSURE:	Not available
VAPOR DENSITY:	Not available
RELATIVE DENSITY:	2.5 g/cm ³
SOLUBILITY(IES):	Soluble
PARTITION COEFFICIENT (N-OCTANOL/WATER):	Not available
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	482°C
VISCOSITY:	Not available
EXPLOSIVE PROPERTIES:	Not available
OXIDIZING PROPERTIES:	Highly reactive oxidizing solid

9.2 Other information

VOC (Directive 1999/13/EC): 20.00 %
VOC (volatile carbon): 10.42 %

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

Information not available.

10.2 Chemical stability

Information not available.

10.3 Possibility of hazardous reactions

The product may react violently with water.

ETHANOL: risk of explosion on contact with: alkaline metals, alkaline oxides, calcium hypochlorite, sulphur monofluoride, acetic anhydride (with acids), concentrated hydrogen peroxide, perchlorates, perchloric acid, perchloronitrile, mercury nitrate, nitric acid, silver and nitric acid, silver nitrate, silver nitrate and ammonia, silver oxide and ammonia, strong oxidising agents, nitrogen dioxide. Can react dangerously with:



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bromoacetylene, chlorine acetylene, bromine trifluoride, chromium trioxide, chromyl chloride, oxiranes, fluorine, potassium tert-butoxide, lithium hydride, phosphorus trioxide, black platinum, zirconium (IV) chloride, zirconium (IV) iodide. Forms an explosive mixture with the air.

10.4 Conditions to avoid

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

ETHANOL: avoid exposure to sources of heat and naked flames.

10.5 Incompatible materials

Information not available.

10.6 Hazardous decomposition products

Information not available.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product. Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).

Sodium perchlorate
LD50 (Oral). 2,100 mg/kg Rat
LD50 (i.p.) 551mg/kg

Ethanol
LD50 (Oral). 1501 mg/kg Rat
LC50 (Inhalation). 20 g/m³/10h Rat

SECTION 12 ECOLOGICAL INFORMATION

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1 Toxicity

Information not available.

12.2 Persistence and degradability

Information not available.

12.3 Bioaccumulative potential

Information not available.

12.4 Mobility in soil

Information not available.

12.5 Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6 Other adverse effects

Information not available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.



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Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number: UN1170

14.2 UN proper shipping name: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3 Transport hazard class(es): 3

14.4 Packing group: II

14.5 Environmental hazards: Not a Marine Pollutant

14.6 Special precautions for user: n/a

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

SECTION 15 REGULATORY INFORMATION

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

Seveso category. 7b

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product Point. 3 - 40

Substances in Candidate List (Art. 59 REACH).
None.

Substances subject to authorisation (Annex XIV REACH).
None.

Substances subject to exportation reporting pursuant to (EC) Reg. 689/2008:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

	This procedure derives from S19g para. 5 of the German "Water Law" (Wasserhaushaltsgesetz, WHG) dated 1 March 2010, in conjunction with the administrative directive governing substances hazardous to water.	
Germany. Sodium Perchlorate Substance No: 382 Ethanol Substance No: 96	Water Hazard Class	WGK 1

15.2 Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.



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SECTION 16 OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Ox. Sol 1	Oxidative Solution, category 1
Acute Tox 4	Acute toxicity, category 4
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed
H271	May cause fire or explosion; strong oxidiser

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as Reach Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
6. Regulation (EC) 453/2010 of the European Parliament
7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
8. The Merck Index. - 10th Edition
9. Handling Chemical Safety
10. Niosh - Registry of Toxic Effects of Chemical Substances
11. INRS - Fiche Toxicologique (toxicological sheet)
12. Patty - Industrial Hygiene and Toxicology
13. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
14. ECHA website

Note for users:

All information is correct, to the best of our knowledge, on the date of issue of the data sheet. It is provided for information purposes only, however, and does not constitute a guarantee.

Procedures for use: see instructions in the package. Do not use the product for any purpose other than that for which it is intended.

Judgments as to the suitability of information herein for the purchaser's purposes are necessarily the purchaser's responsibility.

Although reasonable care has been taken in the preparation of such information, the company extends no warranties, makes no representations and assumes no responsibility as to accuracy or suitability of such information for application to purchaser's intended purposes and accepts no responsibility for any injury, loss or damage deriving from improper use of the product.

The product is employed under its users' control and it is their responsibility to comply with the correct operating procedures indicated, as well as to observe proper laboratory hygiene.