



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

SAFETY DATA SHEET: BSDS04

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
POWER2LYSE (Component Number 5.06)	Kit Components: Bullet BUGS'n BEADS™, Product code 2.09.04

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 Guanidinium thiocyanate and Triton X-100

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

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
Page 1/8

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



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SAFETY DATA SHEET: BSDS04

Language	EN
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Date:	2018-08-14

Sydney

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
Acute Toxicity, category 4 – H302+ H332 Skin Corrosive (category 1B) H314 Aquatic Chronic (category 3) H412

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:	  GHS07 GHS05
HAZARD STATEMENTS:	H302+ H332 Harmful if swallowed or if inhaled. H314 Causes severe skin burns and eye damage. H412 Harmful to aquatic life with long lasting effects. EUH032 Contact with acid liberates very toxic gas.
PRECAUTIONARY STATEMENTS:	P273 Avoid release to the environment. P280 Wear protective gloves / protective clothing / eye protection / face protection. P301+P312 IF SWALLOWED: Call a POISON CENTRE / doctor if you feel unwell. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

None

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

N.A. for mixture



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3.2 Mixtures

Contains: Guanidinium thiocyanate and Triton X-100

CAS No.	CE No.	Index No.	Concentration	Classification Reg. 1272/2008 (pure substance)
593-84-0	209-812-1	-	30-50%	Acute Tox. 4 H302+H312+H332, Skin Corr. 1B H314, Aquatic Chronic 3 H412, EUH032
9002-93-1	-	-	1-2%	Acute Tox. 4 H302, Eye Irit 2 H319, Aquatic Chronic 2 H411

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2 Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3 Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

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:



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Block the leakage if there is no hazard.

Avoid breathing vapours/mists/gases.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

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.

Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2 Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. 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

Information not available.

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 with category III (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVA, butyl, fluoroelastomer or equivalent. 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 safety goggles or visor.

RESPIRATORY PROTECTION

Avoid inhaling aerosol.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing 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: Guanidine thiocyanate



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Date:	2018-08-14

PROPERTY	DATA
APPEARANCE:	Solid
ODOR:	odourless
ODOR THRESHOLD:	Not available
PH:	5 at 25°C
MELTING POINT/FREEZING POINT	118-122°C
INITIAL BOILING POINT AND BOILING RANGE	Not available
FLASH POINT:	>60°C
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:	1.288g/cm ³
SOLUBILITY(IES):	Soluble
PARTITION COEFFICIENT (N-OCTANOL/WATER):	Not available
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not available
EXPLOSIVE PROPERTIES:	Not available
OXIDIZING PROPERTIES:	Not available

Information for the pure substance: Triton X 100

PROPERTY	DATA
APPEARANCE:	Liquid
ODOR:	Not available
ODOR THRESHOLD:	Not available
PH:	9.7
MELTING POINT/FREEZING POINT	6°C
INITIAL BOILING POINT AND BOILING RANGE	>200°C
FLASH POINT:	251°C (closed cup)
EVAPORATION RATE	Not available
FLAMMABILITY (SOLID, GAS):	Not available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	Not available
VAPOR PRESSURE:	<1.33 hPa at 20°C
VAPOR DENSITY:	Not available
RELATIVE DENSITY:	1.06g/ml at 25°C
SOLUBILITY(IES):	Soluble
PARTITION COEFFICIENT (N-OCTANOL/WATER):	Not available
AUTO-IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not available
EXPLOSIVE PROPERTIES:	Not available
OXIDIZING PROPERTIES:	Not available

9.2 Other information

VOC (Directive 1999/13/EC): 0
VOC (volatile carbon): 0

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.



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10.2 Chemical stability

The product is stable in normal conditions of use and storage.

10.3 Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4 Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition

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.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product generates highly toxic harmful gases upon contact with acids.

Guanidinium thiocyanate

LD50 (Oral). 593 mg/kg Rat

LD50 (Dermal). 300 mg/kg LD50 Mouse (other routes of toxicity)

Triton X 100

LD50 (Oral). 1800 mg/kg Rat

LD50 (Dermal). 8000 mg/kg Rabbit

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

Guanidinium thiocyanate

LC50 (96h). 89,1 mg/l *Poecilia reticulata*

EC50 (48h). 42,4 mg/l *Daphnia magna* 48hr

Chronic NOEC for Fish 25 mg/l *Poecilia reticulata* 96 hours

Chronic NOEC for Crustacea 6,25 mg/l *Daphnia magna* 48hr

Triton X 100

LC50 (96h) 8,9 mg/l *Pimephales promelas*

EC50 (48h) 26 mg/l *Daphnia*

12.2 Persistence and degradability

Triton X 100

NOT rapidly biodegradable.

12.3 Bioaccumulative potential

Information not available.

12.4 Mobility in soil



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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.

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: UN1760

14.2 UN proper shipping name: Corrosive Liquid, N.O.S. (Guanidinium thiocyanate)

14.3 Transport hazard class(es): 8

14.4 Packing group: III

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: n/a

SECTION 15 REGULATORY INFORMATION

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

Seveso category. None

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

Product.
Point. 3

Substances in Candidate List (Art. 59 REACH).
Triton X-100 (CAS 9002-93-1)

Substances subject to authorization (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.

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:

Acute Tox 4	Acute Toxicity category 4
Eye Irrit 2	Eye Irritant category 2
Skin Corr. 1B	Skin corrosion, category 1B
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H302	Harmful if swallowed
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H312	Harmful in contact with skin
H332	Harmful if inhaled
H314	Causes severe skin burns and eye damage
H319	Causes serious eye damage
EUH032	Contact with acids liberates very toxic gas.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- 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

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.