

SAFETY DATA SHEET

Document reference number: SDS 502-537A Febrile Antigens

Issue number: REV 2 / SEP 2025



A CALIBRE SCIENTIFIC COMPANY

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),
1272/2008 (CLP) & 2015/830

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

1.1 Product identifier

Product code(s) & Product Name

502005A Salmonella Typhi H
504005A Salmonella Paratyphi AH
506005A Salmonella Paratyphi BH
508005A Salmonella Paratyphi CH
510005A Salmonella Typhi O
512005A Salmonella Paratyphi AO
514005A Salmonella Paratyphi BO
516005A Salmonella Paratyphi CO
518005A Brucella Abortus
520005A Brucella Melitensis
522005A Proteus OX2
524005A Proteus OX19
526005A Proteus OXK
532042A Febrile Antigen Kit + Controls
536001A Febrile Positive Control
537001A Febrile Negative Control

CAS No.

Mixture

EINECS No.

Mixture

Product Description

Antigen suspension of of killed bacteria, stained to enhance reading of agglutination tests. Blue stained antigens are specific to somatic 'O' antigen. Red stained antigens are specific to flagellar 'H' antigens. pH 8 – 8.4, to which is added a preservative

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

Identified Use(s)

A slide and tube agglutination test for the qualitative and semi-quantitative detection of Anti-Salmonella, Brucella and Rickettsia antibodies in human serum. Stained bacterial suspensions will agglutinate (clump) in the presence of the corresponding antibody

Uses Advised Against

Anything other than the above

1.3 Details of the supplier of the safety data sheet

Company Identification

Lorne Laboratories Ltd
Unit 1 Cutbush Park Industrial Estate
Danehill
Lower Earley
Berkshire RG6 4UT
United Kingdom
+44(0) 0118 921 2264
+44(0) 0118 986 4518
Info@lornelabs.com

Telephone

Fax

E-Mail (competent person)

1.4 Emergency telephone number

+44(0) 0118 921 2264
Available 0900 – 1700 (GMT)
English

Languages spoken

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1

H317

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07

Signal Word (CLP)

Warning

Contains (CLP)

Formaldehyde
2-Methyl-2H-isothiazol-3-one (Proclin 950)

Hazard Statement (CLP)

EUH208 – May produce an allergic reaction
H317 - May cause an allergic skin reaction

Precautionary Statement (CLP)

P261 - Avoid breathing vapours
P272 - Contaminated work clothing should not be allowed out of the workplace
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3 Other hazards

Contains material from animal origin. No known test method can guarantee that products derived from human or animal sources will not transmit infectious agents. It is recommended that this product and assay material are handled as a potential biohazard

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not Applicable

3.2 Mixtures

Name	Product identifier	Conc. (%)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium Azide	CAS-No: 26628-22-8 EC No: 247-852-1	0.095	Acute Tox. 2; H300 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

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Name	Product identifier	Conc. (%)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Formaldehyde substance with a Community workplace exposure limit	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5	< 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335
2-methylisothiazol-3(2H)-one (PROCLIN 950)	CAS-No.: 2682-20-4 EC-No.: 220-239-6 EC Index-No.: 613-326-00-9	< 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Formaldehyde	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5	(0.2 ≤ C < 100) Skin Sens. 1, H317 (5 ≤ C < 100) STOT SE 3, H335 (5 ≤ C < 25) Eye Irrit. 2, H319 (5 ≤ C < 25) Skin Irrit. 2, H315 (25 ≤ C < 100) Skin Corr. 1B, H314
2-methylisothiazol-3(2H)-one (PROCLIN 950)	CAS-No.: 2682-20-4 EC-No.: 220-239-6 EC Index-No.: 613-326-00-9	(0.0015 ≤ C ≤ 100) Skin Sens. 1A, H317

Full text of H- and EUH-statements: see section 16

4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

First-aid measures general:

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible)

Inhalation:

Allow affected person to breathe fresh air. Allow the victim to rest

Skin Contact:

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse

Eye Contact:

Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists

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Ingestion:

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention

4.2 Most important symptoms and effects, both acute and delayed

Not expected to present a significant hazard under anticipated conditions of normal use

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing Media

Foam. Dry powder. Carbon dioxide. Water spray. Sand

Unsuitable extinguishing Media

Do not use a heavy water stream

5.2 Special hazards arising from the substance or mixture

No additional information available

5.3 Advice for fire-fighters

Firefighting instructions

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent firefighting water from entering the environment

Protection during firefighting

Do not enter fire area without proper protective equipment, including respiratory protection

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Evacuate unnecessary personnel

For emergency responders

Protective equipment

Equip cleanup crew with proper protection

Emergency procedures

Ventilate area

6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters

6.3 Methods and material for containment and cleaning up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials

6.4 Reference to other sections

See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep only in the original container in a cool, well-ventilated place away from :
Heat sources. Keep container closed when not in use

Incompatible products

Strong bases. Strong acids

Incompatible materials

Sources of ignition. Direct sunlight

7.3 Specific end use(s)

See Section: 1.2

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

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National occupational exposure and biological limit values

Sodium azide (26628-22-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Sodium azide
IOEL TWA	0.1 mg/m ³
IOEL STEL	0.3 mg/m ³
Remark	Skin

Formaldehyde (50-00-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Formaldehyde
IOEL TWA [ppm]	0.2 ppm
IOEL STEL [ppm]	0.4 ppm
Remark	skin sensitiser. SCOEL Recommendations (2008/Ongoing)

Methanol (CH ₃ OH) (67-56-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methanol
IOEL TWA	260 mg/m ³
IOEL TWA [ppm]	200 ppm
Remark	skin

Recommended monitoring procedures

No additional information available

Air contaminants formed

No additional information available

DNEL and PNEC

No additional information available

Control banding

No additional information available

8.2 Exposure controls

Appropriate engineering controls:

No additional information available

Personal protective equipment:

Avoid all unnecessary exposure

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Personal protective equipment symbol(s):

Eye/face protection



Chemical goggles or safety glasses

Skin protection



Wear protective gloves

Respiratory protection



Wear appropriate mask

Thermal hazards

No additional information available

Environmental Exposure Controls:

Do not eat, drink or smoke during use

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	
Salmonella Typhi H	Red
Salmonella Paratyphi AH	Red
Salmonella Paratyphi BH	Red
Salmonella Paratyphi CH	Red
Salmonella Typhi O	Blue
Salmonella Paratyphi AO	Blue
Salmonella Paratyphi BO	Blue
Salmonella Paratyphi CO	Blue
Brucella Abortus	Blue
Brucella Melitensis	Blue
Proteus OX2	Blue
Proteus OX19	Blue
Proteus OXK	Blue
Febrile Positive Control	Yellowish
Febrile Negative Control	Colourless or Yellowish
Odour	Odourless
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	96 – 98 °C Applies only to formol
Flammability	Non flammable
Explosive limits	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Flash point	62 °C Applies only to formol
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	8 – 8.4
Viscosity, kinematic	Not available
Solubility	Not available
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available

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Vapour pressure at 50°C	Not available
Density	Not available
Relative density	Not available
Relative vapour density at 20°C	Not available
Particle characteristics	Not applicable

9.2 Other information No additional information available

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	No additional information available
10.2 Chemical stability	Not established
10.3 Possibility of hazardous reactions	Not established
10.4 Conditions to avoid	Direct sunlight. Extremely high or low temperatures
10.5 Incompatible materials	Not known when used appropriately
10.6 Hazardous decomposition product(s)	No hazardous decomposition products known

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (Substances in preparations / mixtures)

Acute toxicity

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified pH: 8 – 8.4
Additional information	Based on available data, the classification criteria are not met

Serious eye damage/irritation	Not classified pH: 8 – 8.4
Additional information	Based on available data, the classification criteria are not met

Respiratory or skin sensitization	Not classified. Based on available data, the classification criteria are not met
Germ cell mutagenicity	Not classified. Based on available data, the classification criteria are not met
Carcinogenicity	Not classified. Based on available data, the classification criteria are not met
Reproductive toxicity	Not classified. Based on available data, the classification criteria are not met

STOT - single exposure Formaldehyde (50-00-0)	May cause respiratory irritation
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STOT - repeated exposure Aspiration hazard	Not classified. Based on available data, the classification criteria are not met Not classified. Based on available data, the classification criteria are not met
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11.2 Information on other hazards

Endocrine disrupting properties	No additional information available
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified
12.2 Persistence and degradability	
Salmonella Typhi H	Not established
Salmonella Paratyphi AH	Not established

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Salmonella Paratyphi BH	Not established
Salmonella Paratyphi CH	Not established
Salmonella Typhi O	Not established
Salmonella Paratyphi AO	Not established
Salmonella Paratyphi BO	Not established
Salmonella Paratyphi CO	Not established
Brucella Abortus	Not established
Brucella Melitensis	Not established
Proteus OX2	Not established
Proteus OX19	Not established
Proteus OXK	Not established
Febrile Antigen Kit + Controls	Not established
Febrile Positive Control	Not established
Febrile Negative Control	Not established

12.3	Bioaccumulative potential	Not established
12.4	Mobility in soil	No additional information available
12.5	Results of PBT and VPVB assessment	No additional information available
12.6	Endocrine disrupting properties	No additional information available
12.7	Other adverse effects	Avoid release to the environment

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	
	Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations
	Ecological waste information	Avoid release to the environment

14. SECTION 14: TRANSPORT INFORMATION

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'.

In accordance with ADR / IMDG / IATA / ADN / RID

14.1	UN number	
	UN-No. (ADR)	Not applicable
	UN-No. (IMDG)	Not applicable
	UN-No. (IATA)	Not applicable
	UN-No. (ADN)	Not applicable
	UN-No. (RID)	Not applicable
14.2	UN proper shipping name	
	Proper Shipping Name (ADR)	Not applicable
	Proper Shipping Name (IMDG)	Not applicable
	Proper Shipping Name (IATA)	Not applicable
	Proper Shipping Name (ADN)	Not applicable
	Proper Shipping Name (RID)	Not applicable
14.3	Transport hazard class(es)	
	Transport hazard class(es) (ADR)	Not applicable
	Transport hazard class(es) (IMDG)	Not applicable
	Transport hazard class(es) (IATA)	Not applicable
	Transport hazard class(es) (ADN)	Not applicable
	Transport hazard class(es) (RID)	Not applicable
14.4	Packing group	
	Packing group (ADR)	Not applicable
	Packing group (IMDG)	Not applicable
	Packing group (IATA)	Not applicable
	Packing group (ADN)	Not applicable

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	Packing group (RID)	Not applicable
14.5	Environmental hazards	
	Dangerous for the environment	No
	Marine pollutant	No
	Other information	No supplementary information available
14.6	Special precautions for user	
	Overland transport	Not applicable
	Transport by sea	Not applicable
	Air transport	Not applicable
	Inland waterway transport	Not applicable
	Rail transport	Not applicable
14.7	Maritime transport in bulk according to IMO instruments	Not applicable

15. SECTION 15: REGULATORY INFORMATION

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

No additional information available

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out

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16. SECTION 16: OTHER INFORMATION

Indication of changes: Sections 1 - 16

Regulatory information

Data sources

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
EUH208	Contains Formaldehyde. May produce an allergic reaction
EUH210	Safety data sheet available on request
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled

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H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H350	May cause cancer
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1 (Using H317 Calculation method)
Skin Sens. 1A	Skin sensitisation, category 1A
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Disclaimers

Customers are urged to ensure that the product is entirely suitable for their own purpose. It is the customers' responsibility to ensure that a suitable and sufficient assessment of the risks created by the use of the product is undertaken. The use of the reagent and the interpretation of results must be carried out by properly trained and qualified personnel in accordance with the requirements of the country where the reagent is in use.

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Revision History

Revision	Date	Description
1	JUL 2013	Issue 1
2	SEP 2025	Issue 2