



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Commission Regulation (EU) 2020/878
and Regulation (EC) No. 1272/2008

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Revision Number 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) 770400-24,770500-24,770400-96,770500-96

Product Name Universal H&W Kit - Hybridisation Buffer

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Analytical reagent
For research use only

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Supplier

Oxford Gene Technology
Begbroke Science Park
Begbroke Hill, Woodstock Road
Begbroke, Oxfordshire
OX5 1PF, United Kingdom
+44 (0)1865 856800
support@ogt.com

For further information, please contact

1.4. Emergency telephone number

Emergency telephone +44 (0)1865 856800 (08.30-17.30 GMT)

Emergency telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Dermal	Category 4 - (H312)
Skin corrosion/irritation	Category 2 - (H315)
Specific target organ toxicity — single exposure	Category 1
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Tetramethylammonium chloride



Signal word
Danger

Hazard statements

- H301 - Toxic if swallowed
- H312 - Harmful in contact with skin
- H315 - Causes skin irritation
- H370 - Causes damage to organs
- H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

- P260 - Do not breathe dust/fume/gas/mist/vapours/spray
- P273 - Avoid release to the environment
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
- P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor
- P321 - Specific treatment (see .? on this label)
- P391 - Collect spillage

Additional information

This product requires tactile warnings if supplied to the general public. This product requires child resistant fastenings if supplied to the general public.

2.3. Other hazards

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Tetramethylammonium chloride 75-57-0	<30	No data available	200-880-8	Acute Tox. 2 (H300) Acute Tox. 3 (H311) Skin Irrit. 2 (H315) STOT SE 1 (H370) Aquatic Chronic 2 (H411)	-	-	-

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Tetramethylammonium chloride 75-57-0	50	500	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a doctor.
Skin contact	If symptoms persist, call a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry powder.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

Hazardous combustion products Carbon oxides. Nitrogen oxides (NOx). Hydrogen chloride gas.

5.3. Advice for firefighters

Specific/special fire-fighting measures Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Do not allow to enter into surface water or drains. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Wear personal protective equipment. Wash hands thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

7.3. Specific end use(s)

Specific use(s).

The identified uses for this product are detailed in Section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection Handling of larger amounts: Wear protective eye glasses for protection against liquid splashes. Wear safety glasses with side shields (or goggles).

Hand protection To protect the wearer, gloves must be the correct fit and be used properly. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
Physical state Liquid
Colour Colourless
Odour No information available
Odour threshold No information available

Property	Values	Remarks • Method
Melting point / freezing point		No data available

Initial boiling point and boiling range	No data available
Flammability	Not applicable
Flammability Limit in Air	
Upper flammability or explosive limits	Not applicable
Lower flammability or explosive limits	Not applicable
Flash point	No data available
Autoignition temperature	
Decomposition temperature	No data available
pH	No data available
pH (as aqueous solution)	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Water solubility	
Solubility(ies)	No data available
Partition coefficient	No data available
Vapour pressure	No data available
Relative density	No data available
Bulk density	No data available
Liquid Density	No data available
Vapour density	No data available
Particle characteristics	
Particle Size	No data available
Particle Size Distribution	No data available

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

Explosive properties Not an explosive

Oxidising properties Not an oxidiser

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

 Sensitivity to mechanical impact None.

 Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Hydrogen chloride.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Toxic if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. May cause redness and tearing of the eyes.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral)	171.8311 mg/kg
ATEmix (dermal)	1,724.10 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Tetramethylammonium chloride	= 50 mg/kg (Rat)	200 - 500 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Causes skin irritation.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.

Reproductive toxicity No information available.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Tetramethylammonium chloride 75-57-0	-	LC50: 431 - 495mg/L (96h, Pimephales promelas)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Chemical name	PBT and vPvB assessment
Tetramethylammonium chloride 75-57-0	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Dispose of waste product or used containers according to local regulations.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information**IMDG**

14.1 UN number or ID number UN2810
14.2 UN proper shipping name TOXIC LIQUID, ORGANIC, N.O.S.
14.3 Transport hazard class(es) 6.1
14.4 Packing group III
Description UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride), 6.1, III, Marine pollutant
14.5 Environmental hazards Yes
14.6 Special Precautions for Users
Special Provisions 223, 274
EmS-No F-A, S-A
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number UN2810
14.2 UN proper shipping name TOXIC LIQUID, ORGANIC, N.O.S.
14.3 Transport hazard class(es) 6.1
14.4 Packing group III
Description UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride), 6.1, III, Environmentally Hazardous
14.5 Environmental hazards Yes
14.6 Special Precautions for Users
Special Provisions None
Classification code T1

ADR

14.1 UN number or ID number UN2810
14.2 UN proper shipping name TOXIC LIQUID, ORGANIC, N.O.S.
14.3 Transport hazard class(es) 6.1
14.4 Packing group III
Description UN2810, TOXIC LIQUID, ORGANIC, N.O.S. (Tetramethylammonium chloride), 6.1, III, Environmentally Hazardous

14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 614
Classification code	T1
Tunnel restriction code	(E)

IATA

14.1 UN number or ID number	UN2810
14.2 UN proper shipping name	Toxic liquid, organic, n.o.s.
14.3 Transport hazard class(es)	6.1
14.4 Packing group	III
Description	UN2810, Toxic liquid, organic, n.o.s.(Tetramethylammonium chloride), 6.1, III
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	A3, A4, A137
ERG Code	6L
Note:	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France**

Occupational Illnesses (R-463-3, France)

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV).
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

H3 - STOT SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE
E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)**Biocidal Products Regulation (EU) No 528/2012 (BPR)**

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

ATE: Acute Toxicity Estimate

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)
 Ceiling Maximum limit value * Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	On basis of test data
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
- European Chemicals Agency (ECHA) (ECHA_API)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- Japan GHS Classification
- Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet