SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING	
1.1 Product Identifiers	
Product Name	Ransel
Cat. No.	RS504
1.2 Relevant identified uses of the substance or mixture and uses advised against.	For *in vitro* diagnostic use only. Do not pipette by mouth. Handle laboratory reagents in accordance with Good Laboratory Practice.
1.3 Details of the supplier of the safety data sheet	
Company	Randox Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
Telephone	+44 (0) 28 9442 2413
Fax	+44 (0) 28 9445 2912
E-mail Address	**sds@randox.com**
Website	www.randox.com
1.4 Emergency Telephone Number	
Emergency Phone No.	+44 (0) 28 9442 2413 (GMT, English spoken, Mon - Fri. 08.40-17.20)

2. HAZARDS IDENTIFICATION	
2.1 Classification of the substance or mixture	
2.1.1 Regulation (EC) No. 1272/2008 (CLP)	**R1a. Reagent and R1b. Buffer** This product contains no hazardous chemicals in reportable quatities according to Regulation (EC) No. 1272/2008 (CLP) **R2. Cumene Hydroperoxide** Organic peroxides (Type EF), H242 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 4), H312 Skin corrosion (Category 1B), H314 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 Specific target organ toxicity - repeated exposure (Category 2), H373 Aspiration hazard (Category 1), H304 Chronic aquatic toxicity (Category 2), H411 **R3. Diluting Agent** Acute toxicity, Oral (Category 4), H302 Aquatic Environment - Chronic Hazard (Category 3), H412
2.1.2 Directive 67/548/EEC & Directive 1999/45/EC	**R1a. Reagent and R1b. Buffer** This product contains no hazardous chemicals in reportable quatities according to EU Directives 67/548/EEC or 1999/45/EC **R2. Cumene Hydroperoxide** O Oxidizing R7, T Toxic R23, C Corrosive R34, Xn Harmful R21/22, R48/20/22, R65, N Dangerous for the environment R51/53 **R3. Diluting Agent**: T Toxic R25, R52/53

2.2 Label Elements	
Labelling according to Regulation (EC) No. 1272/2008 (CLP)	
Product Name	**R1a. Reagent** **R1b. Buffer** **R2. Cumene Hydroperoxide** **R3. Diluting Agent**
Hazard Pictogram (s)	**R1a. Reagent and R1b. Buffer** - No pictogram **R2. Cumene Hydroperoxide**  **R3. Diluting Agent** 
Signal Word (s)	**R1a. Reagent and R1b. Buffer** - No signal word **R2. Cumene Hydroperoxide** Danger **R3. Diluting Agent** Warning
Hazard Statement (s)	**R2. Cumene Hydroperoxide** H242 - Heating may cause a fire H302 + H312 - Harmful if swallowed or in contact with skin H304 - May be fatal if swallowed and enters airways H314 - Causes severe burns and eye damage H331 - Toxic if inhaled H335 - May cause respiratory irritation H373 - May cause damage to organs through prolonged or repeated exposure H411 - Toxic to aquatic life with long lasting effects **R3. Diluting Agent** H302 - Harmful if swallowed H412 - Harmful to aquatic life with long lasting effects
Precautionary Statement (s)	**R2. Cumene Hydroperoxide** P220 - Keep/Store away from clothing/combustible materials P261 - Avoid breathing vapours P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection P301 + P310 - If swallowed: Immediately call a poisin centre or doctor/physician P305 + P351 + P338 - If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **R3. Diluting Agent** R264 - Wash thoroughly after handling P270 - Do not eat, drink or smoke when using this product P273 - Avoid release to the environment P301 + P310 - IF SWALLOWED: IF SWALLOWED: Immediately call a POISON CENTRE / doctor P330 - Rinse mouth

2.3 Other Hazards	Component R1b contains sodium azide (<0.1%) and component R3 contains sodium azide (1-10%). Avoid ingestion or contact with skin or mucous membranes. Sodium azide reacts with lead or copper plumbing to form potentially explosive azides. When disposing of such reagents flush with large volumes of water to prevent azide build up. Exposed metal surfaces should be cleaned with 10% sodium hydroxide.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances – Not applicable

3.2 Mixtures

EC Classification No. 1272/2008

Component Name	Hazardous Chemical	Concentration (w/v)	CAS No.	REACH Reg. No.	Hazard Statement(s)
R1a. Reagent and R1b. Buffer	No hazardous components in reportable concentrations	Not applicable	Not applicable	Not applicable	Not applicable
R2. Cumene Hydroperoxide	Cumene hydroperoxide	50 - 100%	80-15-9	Not determined	Org. Perox. E: H242 Acute Tox. 4: H302 + H312 Acute Tox. 3: H331 Skin Corr. 1B: H314 STOT RE 2: H373 Aquatic Chronic 2: H411
	Cumene	20-25%	98-82-8	Not determined	Flam. Liq. 3: H226 STOT SE 3: H335 Asp Tox. 1: H304 Aquatic Chronic 2: H411
	2-Phenylpropan-2-ol	< 10%	617-94-7	Not determined	Acute Tox. 4: H302 Skin Irrit. 2: H315 Eye Irrit. 2: H319 STOT SE 3: H335
R3. Diluting Agent	Sodium azide	1-10%	26628-22-8	Not determined	Acute Tox. 2: H300 Aquatic Acute 1: H400 Aquatic Chronic 1: H410

EC Classification No. 67/548/EEC

Component Name	Hazardous Chemical	Concentration (w/v)	CAS No.	REACH Reg. No.	EC Classification and Risk Phrase(s)
R1a. Reagent and R1b. Buffer	No hazardous components in reportable concentrations	Not applicable	Not applicable	Not applicable	Not applicable
R2. Cumene Hydroperoxide	Cumene hydroperoxide	50 - 100%	80-15-9	Not determined	O: R7 T: R21/22, R23, R34, R48/20/22 N: R51/53
	Cumene	20-25%	98-82-8	Not determined	Xn: R10, R37, R65 N: R51/53
	2-Phenylpropan-2-ol	< 10	617-94-7	Not determined	Xn: R22, R36/37/38
R3. Diluting Agent	Sodium azide	1-10%	26628-22-8	Not determined	T^{+}: R28, R32

					N: R50/53

4. FIRST AID MEASURES	
4.1 Description of first aid measures	
Inhalation	If inhaled, move victim to fresh air, rest and maintain a half-upright position. Use artificial respiration if necessary. Immediately seek medical attention.
Skin Contact	If skin contact occurs, remove contaminated clothes, rinse skin with plenty of cold water or shower. Seek medical attention.
Eye Contact	If eye contact occurs, first rinse with plenty of cold water for several minutes, then immediately seek medical attention.
Ingestion	If ingested, rinse mouth. Do not induce vomiting. Give plenty of water to drink. Immediately seek medical attention.
4.2 Most important symptoms and effects, both acute and delayed	Not determined
4.3 Indication of any immediate medical attention and special treatment needed	Call an internal person trained in First Aid if available, or contact a physician.

5. FIREFIGHTING MEASURES	
5.1 Extinguishing media	As appropriate for the surrounding fire
5.2 Special hazards arising from the substance or mixture	May emit toxic fumes under fire conditions.
5.3 Advice for firefighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES	
6.1 Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Wear appropriate Personal Protective Equipment *e.g.* laboratory coat, gloves, safety glasses and mask.
6.2 Environmental Precautions	Not determined
6.3 Methods and materials for containment and cleaning up	Use appropriate spill absorbent kit as instructed by the manufacturer. Alternatively mop up with an absorbent material and hold for waste disposal.
6.4 Reference to other sections	Refer to section 8 & 13

7. HANDLING AND STORAGE	
7.1 Precautions for safe handling	Wear personal protective equipment (refer to section 8.2.2). Wash thoroughly after handling. Do not use if skin is cut or scratched. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product.
7.2 Conditions for safe storage, including any incompatibilities	Store at temperatures and conditions as indicated on the product label.
7.3 Specific end use (s)	*In vitro* diagnostic use

8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
8.1 Control Parameters	Not determined
8.2 Exposure Controls	
8.2.1 Appropriate engineering controls	Ensure adequate ventilation.
8.2.2 Personal protective equipment	
Eye/Face Protection	Approved safety glasses
Hand Protection	Standard laboratory rubber or latex gloves
Skin Protection	A laboratory coat is recommended
Respiratory Protection	Face mask
8.2.3 Environmental Exposure Controls	Not determined

9. PHYSICAL AND CHEMICAL PROPERTIES	
9.1 Information on basic physical and chemical properties	
Appearance	R1a. Reagent - Solid R1b. Buffer - Liquid R2. Cumene Hydroperoxide - Liquid R3. Diluting Agent - Solid
Colour	R1a. Reagent - Red/brown R1b. Buffer - Colourless R2. Cumene Hydroperoxide - Colourless R3. Diluting Agent - Pale yellow
Odour	Not determined
Odour threshold (ppm)	Not determined
pH Value	Not determined
Melting point / Freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point (ºC)	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not determined
Vapour pressure	Not determined
Vapour Density	Not determined
Relative Density	Not determined
Solubility (ies)	Not determined
Partition coefficient: (n-octanol/water)	Not determined
Auto ignition temperature (°C)	Not determined
Decomposition temperature (ºC)	Not determined

Viscosity (mPa.s)	Not determined
Explosive properties	Not determined
Oxidising properties	Not determined
9.2 Other information	None

10. STABILITY AND REACTIVITY	
10.1 Reactivity	Not determined
10.2 Chemical Stability	Stable under recommended storage conditions
10.3 Possibility of hazardous reactions	Not determined
10.4 Conditions to avoid	Not determined
10.5 Incompatible materials	Not determined
10.6 Hazardous decomposition products	Not determined

11. TOXICOLOGICAL INFORMATION	
11.1 Information on toxicological effects	
Acute toxicity Ingestion Inhalation Skin Contact Eye Contact	Not determined Not determined Not determined Not determined Not determined
Skin corrosion/irritation	Not determined
Serious eye damage/eye irritation	Not determined
Respiratory or skin sensitization	Not determined
Germ cell mutagenicity	Not determined
Carcinogenicity	Not determined
Reproductive toxicity	Not determined
STOT – Single exposure	Not determined
STOT- Repeated exposure	Not determined
Aspiration hazard	Not determined
11.2 Other information	Not determined

12. ECOLOGICAL INFORMATION	
12.1 Toxicity	Not determined
12.2 Persistence and degradability	Not determined
12.3 Bioaccumulative potential	Not determined
12.4 Mobility in soil	Not determined
12.5 Results of PBT and vPvB assessment	Not determined
12.6 Other adverse effects	Not determined

13. DISPOSAL CONSIDERATIONS	
13.1 Waste Treatment Methods	Each disposal facility must determine proper disposal methods of the substance or mixture and any contaminated packaging to comply with Local and National Environment Regulations. Refer to section 6.
13.2 Additional Information	Not determined

14. TRANSPORT INFORMATION	
14.1 UN Number	Not applicable
14.2 UN Proper Shipping Name	Not determined
14.3 Transport hazard class (es)	Not applicable
14.4 Packing Group	Not applicable
14.5 Environmental Hazards	Not determined
14.6 Special Precautions for User	Refer to section 7
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable

15. REGULATORY INFORMATION This safety data sheet complies with the requirements of EU Regulations 1907/2006 (REACH), 1272/2008 (CLP) & 453/2010.	
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	Not determined
15.2 Chemical Safety Assessments	CSA has not been carried out

16. OTHER INFORMATION

Hazard Class, Hazard Statements and Risk Phrases Description from Section 3

O Oxidizing; N Dangerous for the environment; T Toxic; T^+ Very Toxic; Xn Harmful

R7 May cause fire
R10 Flammable
R22 Harmful if swallowed
R23 Toxic by inhalation
R25 Toxic if swallowed
R28 Very toxic if swallowed
R32 Contact with acid liberates very toxic gas
R34 Causes burns
R37 Irritating to the respiratory system
R65 Harmful: may cause lung damage if swallowed
R21/22 Harmful in contact with skin and if swallowed
R36/37/38 Irritating to eyes, respiratory system and skin
R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin and if swallowed
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Acute Tox. 2 - Acute toxicity, category 2
Acute Tox. 3 - Acute toxicity, category 3
Acute Tox. 4 - Acute toxicity, category 4
Asp. Tox. 1 - Aspiration hazard, category 1
Aquatic Acute 1 - Aquatic environment, acute hazard, category 1
Aquatic Chronic 1 - Aquatic environment, chronic hazard, category 1
Aquatic Chronic 2 - Aquatic environment, chronic hazard, category 1
Eye Irrit. 2 - Eye irritation, category 2
Flam. Liq. 3 - Flammable liquids, category 3
Org. Perox. E - Organic peroxides, Type E
Skin Corr. 1B - Skin corrosion, category 1B
Skin Irrit. 2 - Skin irritation, category 2
STOT RE 2 - Specific Target Organ Toxicity, category 2
STOT RE 3 - Specific Target Organ Toxicity, category 3

H226 Flammable liquid and vapour
H242 Heating may cause a fire
H300 Fatal if swallowed
H302 Harmful if swallowed
H302 + H312 - Harmful if swallowed or in contact with skin
H304 May be fatal if swallowed and enters airways
H314 Causes severe burns and eye damage
H315 Causes skin irritation
H319 Causes serious eye irritation
H331 Toxic if inhaled
H335 May cause respiratory irritation
H373 May cause damage to organs
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects
H411 Toxic to aquatic life with long lasting effects

The information provided herein is believed to be correct as of the date hereof but does not purport to be all-inclusive and shall be used only as a guide. The information present in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The recipient of our products is responsible for observing any National Laws and guidelines applicable.