Safety Data Sheet

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

Identification of the substance or mixture

Product code 27852
Product name RBS 35 CONCENTRATE, 20 KG

Company/undertaking identification

Life Technologies Corporation
5781 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies
5250 Mainway Drive
Burlington, ONT
CANADA L7L 6A4
800/263-6236

Thermo Fisher Scientific
Pierce Biotechnology
P.O. Box 117
Rockford, IL 61105
United States
1.815.968.0747 or
1.800.874.3723

24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident. Spill, Leak, Fire, Exposure, or Accident. Call CHEMTREC
Within the USA + Canada: 1-800-424-9300 and 1-703-527-3887
Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

Use as laboratory reagent
Scientific research and development

SECTION 2: Hazards identification

GHS - Classification

Signal Word
WARNING

Hazard pictograms

Health hazards

Serious eye damage/eye irritation	Category 2

Physical hazards
Not classified

Environmental hazards
Not classified

Hazard Statements
H319 - Causes serious eye irritation

Precautionary Statements

Prevention
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

Storage
Not Applicable

Disposal
Not Applicable

Other hazards
Not Applicable

HMIS

Health	1
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Sodium hydroxide 1310-73-2 (0.5-2)	1310-73-2	-	215-185-5	0.5-2
Potassium Pyrophosphate 7320-34-5 (1-5)	7320-34-5	-	-	1-5
Sodium hypochlorite 7681-52-9 (1-5)	7681-52-9	-	231-668-3	1-5
Sodium carbonate 497-19-8 (1-5)	497-19-8	-	207-838-8	1-5

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed
H319 - Causes serious eye irritation

Indication of any immediate medical attention and special treatment needed
None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Water spray. Carbon dioxide (CO_2). Foam. Dry chemical.

Unsuitable extinguishing media No information available.

Special hazards arising from the substance or mixture
Not known.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation
Avoid contact with skin, eyes or clothing
Use personal protection equipment
See Section 8 for more detail

Environmental precautions
No special environmental precautions required.

Methods and material for containment and cleaning up
Soak up with inert absorbent material.

Reference to other sections
See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling
Always wear recommended Personal Protective Equipment. See Section 8 for more detail. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

Conditions for safe storage, including any incompatibilities
Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with local regulations.

Specific end use(s)
Use as laboratory reagent. Scientific research and development.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Sodium hydroxide	2 mg/m³	None	None	None
Potassium Pyrophosphate	None	None	None	None
Sodium hypochlorite	None	None	None	None
Sodium carbonate	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Sodium hydroxide	None	None	None
Potassium Pyrophosphate	None	None	None
Sodium hypochlorite	None	None	None
Sodium carbonate	None	None	None

Engineering measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection	In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.
Hand protection	Glove material:. Nitrile rubber. with thickness (mm). :5. Break through time. (hours). :1. Recommended glove type has not been tested for use with product. Information is based on professional Knowledge.
Eye protection	Tight sealing safety goggles.
Skin and Body Protection	Wear laboratory coat for body protection.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls
No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	liquid	
Odor	Mixture has not been tested	
Odor Threshold	Mixture has not been tested	
Molecular Weight	No data	
pH	13 [Conc. (%w/w):100%]	
Melting point / melting range	**°C** No data	**°F** No data
Boiling point / boiling range	**°C** No data	**°F** No data
Flash point	**°C** No data	**°F** No data
Autoignition Temperature	**°C** No data	**°F** No data
Decomposition temperature	**°C** No data	**°F** No data
Evaporation rate	No data	
Flammability (solid, gas)	Not Applicable	
Upper explosion limit	No data	
Lower explosion limit	No data	
Vapor Pressure	No data	
Vapor density	No data	
Relative density	No data	
Specific gravity	No data	
Solubility	Mixture has not been tested	
Partition coefficient: n-octanol/water	No data	
Viscosity	Mixture has not been tested	
Explosive properties	Mixture has not been tested	
Oxidizing properties	Mixture has not been tested	

Other information
No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions Hazardous reaction has not been reported.

Conditions to avoid No information available.

Incompatible materials No dangerous reaction known under conditions of normal use.

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hydroxide	500 mg/kg	1350 mg/kg (Rabbit)	No data available
Potassium Pyrophosphate	= 2000 mg/kg (Mouse)	No data available	No data available
Sodium hypochlorite	= 8.91 g/kg (Rat)	No data available	No data available
Sodium carbonate	= 4090 mg/kg (Rat)	No data available	No data available

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritation Irritating to eyes

Respiratory or skin sensitization Data are conclusive but insufficient for classification

Specific target organ toxicity (STOT) – single exposure Data are conclusive but insufficient for classification

Specific target organ toxicity (STOT) – repeated exposure Data are conclusive but insufficient for classification

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity
The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Sodium hydroxide	No data available	No data available	No data available	No data available	No data available
Potassium Pyrophosphate	No data available	water flea EC50>100 mg/L (48 h)	No data available	No data available	No data available
Sodium hypochlorite	Skeletonema costatum EC50=0.095 mg/L (24 h)	Daphnia magna EC500.033 - 0.044 mg/L (48 h) Daphnia magna EC50=2.1 mg/L (96 h)	No data available	No data available	No data available
Sodium carbonate	Nitzschia EC50=242 mg/L (120 h)	Daphnia magna EC50=265 mg/L (48 h)	No data available	No data available	No data available

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods
The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG
Not regulated in the meaning of transport regulations

UN number	Not Applicable
UN proper shipping name	Not Applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable

Environmental hazards
Not Applicable

Special precautions for user
Not Applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not Applicable.

SECTION 15: Regulatory information

Component	US TSCA
Sodium hydroxide 1310-73-2 (0.5-2)	Listed
Potassium Pyrophosphate 7320-34-5 (1-5)	Listed
Sodium hypochlorite 7681-52-9 (1-5)	Listed
Sodium carbonate 497-19-8 (1-5)	Listed

US Federal Regulations

SARA 313
This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contains HAPs.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class
D2B - Toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Sodium hydroxide	1310-73-2	Not Listed	Not Listed
Potassium Pyrophosphate	7320-34-5	Not Listed	Not Listed
Sodium hypochlorite	7681-52-9	Not Listed	Not Listed
Sodium carbonate	497-19-8	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision	SDS sections updated.
Revision number	6
Revision date	29-May-2019

Use as laboratory reagent. Scientific research and development.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED,INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet