

Safety Data Sheet

Canada

Section 1. Identification

Product name Regeneration Stock 2; part of 'Biotin CAPture

Kit'

Catalogue Number 28920233

Product type Liquid.

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

Identified uses

Analytical chemistry. Laboratory chemicals Scientific research and development

Consumer use

Supplier Cytiva Canada

Amersham Place 250 Howe Street, Suite 1400-C

Little Chalfont Vancouver, British Columbia, Canada, V6C 3S7 Buckinghamshire 1 800 463 5800

HP7 9NA United Kingdom +44 1494 508000

In case of emergency INFOTRAC

Outside of the United States, call 24 Hour number: 001-352-323-3500 (Call Collect)

In the United States, call 24 Hour number: 1-800-535-5053

Section 2. Hazard identification

Classification of the substance or mixture SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1

GHS label elements

Hazard pictograms



Signal word Danger

Hazard statements Causes severe skin burns and eye damage.

Precautionary statements

Prevention Wear protective gloves, protective clothing and eye or face protection. Wash thoroughly after

handling.

Response IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a

POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash

contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON

CENTER or doctor.

Storage Store locked up.

Disposal Dispose of contents and container in accordance with all local, regional, national and international

regulations.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Other means of identification Not available.

Ingredient nameSynonyms% (w/w)CAS numberSodium hydroxidecaustic soda; Sodium hydroxide (Na(OH));≥1 - ≤5CAS: 1310-73-2

Sodium hydrate; Soda İye; Lye; sodium hydroxide, solid; sodium hydroxide, in aqueous solution; caustic soda, solid; caustic soda, in aqueous solution

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with

plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a

physician.

Inhalation Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air

and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention

immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with

soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes

thoroughly before reuse.

Ingestion Get medical attention immediately. Call a poison center or physician. Wash out mouth with water.

Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open

airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact Causes serious eye damage.

Inhalation No known significant effects or critical hazards.

Skin contact Causes severe burns.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact Adverse symptoms may include the following:

pain watering redness

Inhalation No specific data.

Skin contact Adverse symptoms may include the following:

pain or irritation redness

blistering may occur

Ingestion Adverse symptoms may include the following:

stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have

been ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. If it is suspected

that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

None known.

Specific hazards arising from

the chemical

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

Decomposition products may include the following materials:

metal oxide/oxides

Special protective actions for

fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

No action shall be taken involving any personal risk or without suitable training

Special protective equipment

for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus

(SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel No action shall be taken involving any personal risk or without suitable training. Evacuate

surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective

equipment.

on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways,

soil or air).

Methods and materials for containment and cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in

an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor.

Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.



Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name Sodium hydroxide

Exposure limits

CA Saskatchewan Provincial (Canada, 4/2021)

CEIL: 2 mg/m³.

CA British Columbia Provincial (Canada, 9/2024)

C: 2 mg/m³

CA Ontario Provincial (Canada, 6/2019)

Ceiling Limit: 2 mg/m³

CA Quebec Provincial (Canada, 2/2024)

C: 2 mg/m3.

CA Alberta Provincial (Canada, 3/2023)

C: 2 mg/m3.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.



Other skin protection Appropriate footwear and any additional skin protection measures should be selected based on the

task being performed and the risks involved and should be approved by a specialist before handling

this product.

Respiratory protection Based on the hazard and potential for exposure, select a respirator that meets the appropriate

standard or certification. Respirators must be used according to a respiratory protection program to

ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state Liquid.
Color Colorless.
Odor Odorless.
Odor threshold Not available.
PH Not available.
Melting point/freezing point Not available.
Boiling point or initial boiling Not available.

point and boiling range

Flash point Not applicable.

Burning time Not applicable.

Burning rate Not applicable.

Evaporation rate Not available.

Flammability Not available.

Lower and upper explosive Not available.

(flammable) limits

Vapor pressure Not available.

Vapor Pressure at 20°C Vapor pressure at 50°C

Ingredient name mm Hg kPa Method mm Hg kPa Method

water 17.5 2.3

n

n

Relative vapor density

Relative density

Not available.

Not available.

Solubility(ies)

MediaResultcold waterEasily solublehot waterEasily soluble

Solubility in water Not available.

Partition coefficient: n-octanol/ Not applicable.

vater

Auto-ignition temperature Not applicable.

Decomposition temperature Not available.

SADT Not available.

Viscosity Dynamic (room temperature): Not available.

sodium hydroxide

Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): Not available.

Flow time (ISO 2431) Not available.

Particle characteristics

Median particle size Not applicable.

Section 10. Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data.

Incompatible materials No specific data.

Hazardous decomposition

products

Under normal conditions of storage and use, hazardous decomposition products should not be

produced

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary [Product]

Not available.

Skin corrosion/irritation

Product/ingredient name

Human - Skin - Severe irritant

Result

<u>Duration of treatment/exposure</u>: 24 hours <u>Amount/concentration applied</u>: 10 pph

Sodium hydroxide

Conclusion/Summary

[Product]

Not available.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary

[Product]

Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary

[Product]

Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary

[Product]

Not available.

Respiratory

Conclusion/Summary

[Product]

Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary

[Product]

Not available.

Carcinogenicity

Not available.

Conclusion/Summary

[Product]

Not available.

Reproductive toxicity

Not available.

Conclusion/Summary

[Product]

Not available.



Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes

of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact Causes serious eye damage.

Inhalation No known significant effects or critical hazards.

Skin contact Causes severe burns.

Ingestion No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact Adverse symptoms may include the following:

watering redness

Inhalation No specific data.

Skin contact Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion Adverse symptoms may include the following:

stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

Not available.

Conclusion/Summary

[Product]

Not available.

GeneralNo known significant effects or critical hazards.CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.Reproductive toxicityNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

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Section 12. Ecological information

Toxicity

Product/ingredient name

Sodium hydroxide

Result

Acute - LC50 - Fresh water

Fish - Western mosquitofish - Gambusia affinis - Adult

125 ppm [96 hours] Effect: Mortality

Conclusion/Summary

[Product]

Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product]

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/Water partition coefficient Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	ADR/RID	IMDG	IATA
UN number	UN1824	UN1824	UN1824	UN1824	UN1824
UN proper shipping name	SODIUM HYDROXIDE, SOLUTION	SODIUM HYDROXIDE, SOLUTION	SODIUM HYDROXIDE, SOLUTION	SODIUM HYDROXIDE, SOLUTION	SODIUM HYDROXIDE, SOLUTION
Transport hazard class(es)	8	8 CONTOUNT	8	8	8
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.
Additional information	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).	Reportable quantity 25000 lbs / 11350 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity)	-	-	-



transportation requirements.

Special precautions for user Transport within user's premises: always transport in closed containers that are upright and

secure. Ensure that persons transporting the product know what to do in the event of an accident or

spillage.

Transport in bulk according to

IMO instruments

Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI None of the components are listed.

CEPA Toxic substances None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Canada All components are listed or exempted.

United States All components are active or exempted.

Section 16. Other information

History

Date of printing9/9/2025Date of issue/Date of revision9/9/2025Date of previous issue4/19/2022Version6

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Key to abbreviations ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HPR = Hazardous Products Regulations IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified

by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available UN = United Nations

Procedure used to derive the classification

Classification Justification

SKIN CORROSION - Category 1 Calculation method SERIOUS EYE DAMAGE - Category 1 Expert judgment

References Not available.

Ind

Indicates information that has changed from previously issued version.

Notice to reader

Article Number 28920233-3



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