



MATERIAL SAFETY DATA SHEET

Hemoglobin - Wholeblood & RBCs (Colorimetric)

SECTION 1. IDENTIFICATION

Product name	Hemoglobin - Wholeblood & RBCs (Colorimetric)
Catalogue number	ZX-44112-96
Manufacturer or supplier's details	ZellBio GmbH . Krantorweg 48c . 13503 Berlin
Telephone	0049-30 81309085
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SECTION 2. HAZARDS IDENTIFICATION

Regulation (EC) No. 1272/2008 [CLP/GHS]

Sodium Hydroxide

Serious eye damage, Category 1
Corrosive to metals, Category 1
Skin corrosion, Category 1B



Sodium Azide

Acute Oral Toxicity, Category 2
Acute Dermal Toxicity, Category 1
Specific Organ Toxicity, Category 2
Skin Sensitization, Category 1



Triton X-100

Acute oral toxicity, Category 4
Eye irritation, Category 2A
Acute aquatic toxicity, Category 2
Chronic aquatic toxicity, Category 2



Hazard statements

Corrosive.
Causes burns by all exposure routes; eyes, skin, mucous membranes.
May be harmful if inhaled, absorbed through skin, swallowed.
May be irritating to eyes, respiratory system and skin.
Contact with acids liberates toxic gas.
May react with lead and copper plumbing to form highly explosive metal azides.
Harmful to aquatic organisms.
May cause long-term adverse effects in aquatic environment.

Precautionary statements

Keep away from heat, open flames, hot surfaces, sparks.
Wash hands thoroughly after handling.
Wear protective gloves, clothing, and eye/face protection.
Avoid release to the environment.

SECTION 3. FIRST AID MEASURES**General advice**

Show this material safety data sheet to the doctor in attendance.

If inhaled

If inhaled, remove to fresh air. Seek medical attention if any respiratory symptoms develop.

In case of skin contact

Rinse with copious amounts of water and wash thoroughly with soap and water for 15 minutes. Remove contaminated clothing and shoes. If irritation or discomfort develops seek medical attention.

In case of eye contact

Rinse eyes with running water, checking for and removing contact lenses. Continue for at least 15 minutes. Seek medical attention.

If swallowed

If swallowed, wash out mouth with water if person is conscious. Seek medical attention.

SECTION 4. INFORMATION ON INGREDIENTS**Components:**

Hemoglobin Standard (C037-300UL)
Hemoglobin Detection Reagent (C038-20ML)
Hemoglobin Diluent (X052-50ML)

Description:	Chemical Name	CAS No	Percent
Hemoglobin Standard, C037-300UL:	Sodium Azide	7647-01-0	≤ 0.09%
Hemoglobin Detection Reagent, C038-20ML:	Sodium Hydroxide	1310-73-2	≤ 1.0%
	Triton X-100	9002-93-1	≤ 5%
Hemoglobin Diluent, X052-50ML:	Sodium Azide	26628-22-8	≤ 0.09%

Additional components of the kit are non-hazardous or the specific chemical identity and/or exact percentage (concentration) of composition have been withheld as a trade secret.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable: Carbon Dioxide, dry chemical powder, or appropriate foam.

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Firefighting

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

Keep in suitable, closed containers for disposal. Wear appropriate protective clothing, Contain spill to prevent migration. Absorb spill with inert material, place in sealed container and hold for appropriate disposal. For blood spills, flood contaminated area with undiluted household bleach (5.5% sodium hypochlorite), then wipe clean. Wash area of spill with soap and water. Place bloodabsorbent waste in biohazardbag for disposal.

Methods and materials for containment and cleaning up Environmental precautions

Discharge into drains should be avoided.

SECTION 7. HANDLING AND STORAGE

Handling

Avoid getting components of this kit on you or in you. Always wear appropriate protective clothing. Always wash hands and other exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. Qualified and experienced professionals should only handle this kit.

Storage

Store according to the package insert instructions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

No special engineering controls are required when working with this kit.
Use with adequate ventilation.

Protective Equipment

Safety glasses are recommended to prevent eye contact. Chemical resistant gloves, lab coat should be worn to prevent skin contact.

SECTION 9. STABILITY AND REACTIVITY

**Stability
Materials to Avoid
Incompatibilities**

This material is stable until the expiration date on the kit if stored as directed.
Heat, incompatibles
Strong oxidizing agents. Sodium azide may react with lead and copper plumbing.

SECTION 10. TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: Harmful if swallowed.

Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 11. ECOLOGICAL INFORMATION

Toxicity

Sodium Azide: LD50 oral: 27 mg/kg (rat); LD50 skin: 20 mg/kg (rabbit)
LD50: 4.2 mg/L/96 hr (Daphnia pulex), 0.8-1.6 mg/L/96 hr (Rainbow trout)
Triton X-100: LD50 oral: 1,800 mg/kg (rat); LD50 skin: 8,000 mg/kg (rabbit)
LC50: 8.9 mg/L/96 hr (Pimephales promelas), 26 mg/L/48 hr (Daphnia)
Algae: ED50 – Pseudokirchneriella subcapitata (green algae) – 17g/L, 72h
Sodium Hydroxide: Readily degradable in the environment. Not bioaccumulative.
Triton X-100: 36% - Not readily biodegradable.

**Persistence / degradability
Mobility in soil
Results of PBT/vPvB**

N/A
N/A

Assessment:

Other adverse effects: Toxic to aquatic life with long lasting effect

SECTION 12. DISPOSAL CONSIDERATIONS

Appropriate Method of Disposal of Substance

Dispose of waste materials, unused components and contaminated packaging in compliance with country, state, district and local regulations. If unsure of the applicable requirements, contact the authorities for information. Solutions containing human-sourced materials should be handled as if potentially infectious. Use safe laboratory procedures in compliance with the Federal Bloodborne Pathogens Standard (29 CFR Part 1910.1030 December 1991).

SECTION 13. TRANSPORT INFORMATION

U.S. and Canadian Transportation; DOT

Proper Shipping Name: Chemical Kits
UN Identification Number: 3316
Class and Description: 9, Miscellaneous
Packing Group: N/A
Hazard Label: Class 9

International Air Transportation (IATA)

Proper Shipping Name: Chemical Kits
UN Identification Number: 3316
Class and Description: 9, Miscellaneous
Packing Group: III Hazard
Label Class: 9

SECTION 14. REGULATORY INFORMATION

Product related information

Safety Statements

The product is not subject to classification according to the sources of literature known to us. Observe general safety regulations when handling chemicals.

Avoid release to the environment.

Harmful if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in aquatic environment.

Risk Statements

U.S. Regulatory Information

Sara Listed: Yes. The sodium azide (CAS# 26628-22-8) contained in this product is subject to SARA 313 Reporting requirements.

SECTION 15. OTHER INFORMATION

Department

Last Revision

Disclaimer:

R&D - ZELLX project - ZellBio GmbH

09.12.2019

For Research Use Only. Not for diagnostic, therapeutic, or other uses.

Other Information

The information contained in this document is accurate to the best of our knowledge and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the materials contained in this kit by properly trained personnel using this kit. Final determination or suitability of any materials is the sole responsibility of the user. ZELLX® shall not be held liable for any damage resulting from use or handling of this product.

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