



# Safety Data Sheet

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**Product line: ELISA Kits**

17166 Rat GRO/CINC-2 $\beta$  Assay Kit - IBL  
27194 Rat TNF- $\alpha$  Assay Kit - IBL

**1. Identification of the substance/mixture and of the company information**

**Product** : Listed on the front cover.

**Product detail** : Standard (Lyophilized)

**Manufacturer/Supplier of the safety data sheet**

Immuno-Biological Laboratories Co., Ltd.

1091-1 Naka, Fujioka-shi, Gunma 375-0005, JAPAN

TEL: +81 (0)274-50-8666 FAX: +81 (0)274-23-6055

URL: <https://www.ibl-japan.co.jp/en/> E-Mail: [do-ibl@ibl-japan.co.jp](mailto:do-ibl@ibl-japan.co.jp)

**Hazards chemical substance**

Dangerous substance	CAS Number	Percent (w/v) %
Sodium azide	26628-22-8	5 % (After reconstitution, 0.05 % in w/v %)

**2. Hazards identification****GHS classification and label elements of the product****Classification of the substance or mixture****PHYSICAL AND CHEMICAL HAZARDS**

Self-reactive substances and mixtures: Type G

**HEALTH HAZARDS**

Acute toxicity (Oral): Category 2

Acute toxicity (Dermal): Category 1

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Specific target organ toxicity - single exposure: Category 1 (CVS; lung; CNS; systemic toxicity)

Specific target organ toxicity - repeated exposure: Category 1 (CVS; CNS)

Specific target organ toxicity - repeated exposure: Category 2 (lung)

**ENVIRONMENT HAZARDS**

Hazardous to the aquatic environment (Acute): Category 1

Hazardous to the aquatic environment (Long-term): Category 1

**(Note)** GHS classification without description: Not classified/Classification not possible

**Label elements**

**Signal word:** Danger

**HAZARD STATEMENT**

Fatal if swallowed

Fatal in contact with skin

Causes severe skin burns and eye damage

Causes serious eye damage

Causes damage to organs after single exposure

Causes damage to organs through prolonged or repeated exposure

May cause damage to organs through prolonged or repeated exposure

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

**PRECAUTIONARY STATEMENT****Prevention**

Avoid release to the environment.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Do not get in eyes, on skin, or on clothing.  
Wash contaminated parts thoroughly after handling.  
Wear protective gloves, protective clothing or face protection.  
Wear eye protection/face protection.  
Do not eat, drink or smoke when using this product.

**Response**

Collect spillage.  
Get medical advice/attention if you feel unwell.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Take off immediately all contaminated clothing and wash it before reuse.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Disposal**

Dispose of contents/container in accordance with local/national regulation.

**3. Composition/information on ingredients****Mixture/Substance selection:** Mixture

Ingredient name: Sodium azide  
Percent (w/v) %: 5 % (After reconstitution, 0.05 % in w/v %)  
Chemical formula:  $\text{NaN}_3$   
Chemicals No., Japan: 1-482  
CAS No.: 26628-22-8  
MW: 65.01  
ECNO: 247-852-1

**Note :** The figures shown above are not the specifications of the product.

**4. First-aid measures****Descriptions of first-aid measures****General measures**

Get medical attention/advice if you feel unwell.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.

**IF ON SKIN (or hair)**

Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.

**IF IN EYES**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

**IF SWALLOWED**

Rinse mouth. Do NOT induce vomiting.  
Call a POISON CENTER or doctor/physician if you feel unwell.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

In case of fire, use water mist, foam, dry sand to extinguish.

**Unsuitable extinguishing media**

Inactive gas firefighting equipment

Halogenated firefighting system

Dry-powder firefighting equipment - phosphate etc.

Dry-powder firefighting equipment - hydrogen carbonate etc.

Dry-powder firefighting equipment - except for phosphate etc., hydrogen carbonate etc.

Carbon dioxide extinguisher

Halogenated extinguisher

Dry-powder extinguisher - phosphate etc.

Dry-powder extinguisher - hydrogen carbonate etc

Dry-powder extinguisher - except for phosphate etc., hydrogen carbonate etc.

**Specific hazards arising from the substance or mixture**

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

**Advice for firefighters****Specific fire-fighting measures**

Evacuate non-essential personnel to safe area.

**Special protective equipment and precautions for fire-fighters**

Wear fire/flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

**6. Accidental release measures****Personnel precautions, protective equipment and emergency procedures**

Ventilate area until material pick up is complete.

Wear proper protective equipment.

**Environmental precautions**

Prevent spills from entering sewers, watercourses or low areas.

Avoid raising dust.

**Methods and materials for containment and cleaning up**

Sweep up, place in a bag and hold for waste disposal.

**Preventive measures for secondary accident**

Collect spillage.

**7. Handling and storage****Precautions for safe handling****Preventive measures**

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

**Safety Measures**

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

When using do not eat, drink or smoke.

**Any incompatibilities**

See "10. Stability and Reactivity"

**Advice on general occupational hygiene**

Do not get in eyes, on skin, or on clothing.

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Take off immediately all contaminated clothing and wash it before reuse.

**Storage****Conditions for safe storage**

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

Keep under lock and key.

**Container and packaging materials for safe handling**

Glass

Polyethylene

**8. Exposure controls/personal protection****Control parameters****Adopted value**

(Sodium azide)

ACGIH(1992) STEL: C (as Sodium azide) 0.29mg/m<sup>3</sup>; (as Hydrazoic acid vapor)

0.11ppm (Card impair; lung dam)

**Exposure controls****Appropriate engineering controls**

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

**Individual protection measures****Respiratory protection**

Wear respiratory protection.

**Hand protection**

Wear protective gloves.

**Eye protection**

Wear eye/face protection.

**9. Physical and Chemical Properties****Information on basic physical and chemical properties**

Physical state: Crystals or crystalline powder

Color: Colorless to white

Odor: Odorless

pH data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Melting point/Freezing point: (decomposes)  $\geq 275^{\circ}\text{C}$

Decomposition temperature data is not available.

Flammability (gases, liquids and solids) data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure: 1 Pa (20°C)

Relative vapor density (Air = 1) data is not available.

Density and/or relative density: 1.85

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble (29wt%, 20°C)  
n-Octanol/water partition coefficient data is not available.  
No Particle characteristics data is not available.

## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Deliquescent material.

### Possibility of hazardous reactions

Decomposes on heating above 275°C. This produces toxic fumes. This generates fire and explosion hazard. Reacts with copper, lead, silver, mercury and carbon disulfide. This produces particularly shock-sensitive compounds. Reacts with acids. This produces toxic and explosive hydrogen azide. (ICSC 0950)

### Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

### Incompatible materials

Acids, Copper, Lead, Silver, Mercury, Carbon disulfide

### Hazardous decomposition products

Hydrogen azide

## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Sodium azide)

rat LD50=45mg/kg (DFGOT vol.20, 2003)

##### Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Sodium azide)

rabbit LD50=20mg/kg (ACGIH, 2001)

#### Irritant properties

##### Skin corrosion/irritation

[GHS Cat. Japan, base data]

(Sodium azide)

rabbit corrosive (DFGOT vol.20, 2003)

##### Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Sodium azide)

Skin Corr. cat. 1

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

#### Carcinogenicity

(Sodium azide)

ACGIH-A4(1992) : Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

#### STOT

##### STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

(Sodium azide)

CVS; lung; CNS; systemic toxicity (DFGOT vol.20, 2003; ACGIH, 2001)

**STOT-repeated exposure**

[cat.1]

[GHS Cat. Japan, base data]  
(Sodium azide)  
CNS; CVS (NTPTR 389, 1991)

[cat.2]

[GHS Cat. Japan, base data]  
(Sodium azide)  
lung (NTPTR 389, 1991)

**Aspiration hazard data is not available.****Additional data**

May cause lung disorders by massive inhalation of powdered substance.  
-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

**12. Ecological Information****Ecotoxicity****Aquatic toxicity**

Very toxic to aquatic life  
Very toxic to aquatic life with long lasting effects

**Aquatic acute toxicity component(s) data**

[GHS Cat. Japan, base data]  
(Sodium azide)  
Algae (*Pseudokirchneriella subcapitata*) ErC50=0.348mg/L/96hr (Aquire, 2010)

**Water solubility**

(Sodium azide)  
good (41.7 g/100 ml, 17°C) (ICSC, 2014)

**Persistence and degradability**

(Sodium azide)  
Degradation measured by HPLC : 1% (Registered chemicals data check & review)

**Bioaccumulative potential**

(Sodium azide)  
log Pow <= 0.3 (Check & Review, Japan)

**Mobility in soil**

Mobility in soil data is not available.

**Other adverse effects**

Ozone depleting chemical data is not available.

**13. Disposal considerations****Waste treatment methods**

Avoid release to the environment (- if this is not the intended use).  
Dispose of contents/container in accordance with local/national regulation.

**14. Transport Information**

UN No.: 1687  
Proper Shipping Name : SODIUM AZIDE  
Class or division : 6.1  
Packing group : II  
ERG GUIDE No.: 153

**IMDG Code (International Maritime Dangerous Goods Regulations)**

UN No.: 1687  
Proper Shipping Name : SODIUM AZIDE  
Class or division : 6.1

Packing group : II

**IATA Dangerous Goods Regulations**

UN No.: 1687

Proper Shipping Name : SODIUM AZIDE

Class or division : 6.1

Hazard labels : Toxic

Packing group : II

**Environmental hazards****MARPOL Annex III - Prevention of pollution by harmful substances**

Marine pollutants (yes/no) : yes

**MARPOL Annex V - Prevention of pollution by garbage discharge**

Specific target organ toxicity - repeated exposure: cat.1

Sodium azide

Hazardous to the aquatic environment - acute hazard: cat.1

Sodium azide

Hazardous to the aquatic environment - long-term hazard: cat.1, 2

Sodium azide

**15. Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture US major regulations**

TSCA

Sodium azide

**Other regulatory information**

Ensure this material in compliance with federal requirements and ensure conformity to local regulations

**16. Other information**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used as a guide. Immuno-Biological Laboratories Co., Ltd. shall not be held liable for any damage resulting from handling or contact with the above product. The burden of safe use of these materials rests solely with the user.

Revision Date 01-Apr-2023



**1. Identification of substance/mixture and company information**

**Product :** Listed on the front cover.

**Product detail :** Stop Solution

**Manufacturer :**


Immuno-Biological Laboratories Co., Ltd.  
1091-1 Naka, Fujioka-shi, Gunma 375-0005, JAPAN  
TEL: +81 (0)274-22-2889 FAX: +81 (0)274-23-6055  
URL: <http://www.ibl-japan.co.jp/eng/> E-Mail: [do-ibl@ibl-japan.co.jp](mailto:do-ibl@ibl-japan.co.jp)

**2. Hazard identification**

- **Main hazard:** Acute toxicity, corrosive, strong acidity
- **Flammability:** Non flammability
- **Potential health effect:**
  - Skin** Corrosive. Severe burn can occur.
  - Eyes** Corrosive. Can cause blindness.
  - Ingestion** Corrosive. Swallowing can cause severe burns of the mouth, throat and stomach, leading to death. Can cause sore throat, vomiting and diarrhea. Circulatory shock is often the immediate cause of death.
  - Inhalation** Inhalation produces damaging effects on the mucous membranes and upper respiratory tract. Symptoms may include irritation of the nose and throat and labored breathing. May cause lung edema, a medical emergency.

**3. Composition/information on ingredients**

- **Chemical characterization:** Mixture (1N, 0.5 mol/L)
- **Description:** Mixture of substances below contained in water with following concentration.

Dangerous components:	CAS Number	Percent (w/v) %
Sulphuric acid 	7664-93-9	4.9 %

- **Additional information:** This product is exempted from the deleterious materials under control law in Japan.

**4. First aid measures**

- **After eye contact:**  
Hold eyelids open and immediately rinse with cool running water for at least 15 minutes, and seek medical attention after rinsing.
- **After skin contact:**  
Wash thoroughly with soap and water. Rinse for 15 minutes. Discard contaminated clothing. Seek medical attention.
- **After swallowing:**  
Do not induce vomiting. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Call a doctor immediately.
- **After inhalation:**  
Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. Call a doctor immediately.

**5. Fire fighting measures**

- **Flammability:** Non-flammable
- **Suitable extinguishing agents:** Use dry chemical foam or CO<sub>2</sub>. Don't use water. Water spray can be used to prevention of spread of a fire.

- **Protective equipment:** No special measures required.

**6. Accidental release measures**

- **Person-related safety precautions:** Wear acid resistant boots, face-shield, chemical splash goggles and acid resistant gloves.
- **Small spills:** Neutralize with soda ash or lime. Cover spill and mix well until pH is neutral. Do not use organic material such as saw dust. Collect into sealable container and dispose of as hazardous waste.
- **Large spills:** Contain and collect as much as possible in suitable containers. Dam and neutralize with soda ash or lime. Absorb with sand or vermiculite and collect in sealable containers. Do not use organic material such as sawdust. Dispose of as hazardous waste.

**7. Handling and storage**

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Don't get in eyes, on skin, or on clothing.  
Don't ingest or inhale.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:** Keep container tightly closed. Store in a cool, dry, well-ventilated area away from incompatible substances.

**8. Exposure control and personal protection gear**

- **Engineering controls:** Provide exhaust ventilation of other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
- **Personal protective equipment:** Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

**9. Physical and chemical properties (H<sub>2</sub>SO<sub>4</sub> solution)**

· <b>Form:</b>	liquid
· <b>Color:</b>	colorless
· <b>Odor:</b>	odorless
· <b>pH:</b>	0.3 (1N solution)
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	undetermined
· <b>Flash point:</b>	Not applicable
· <b>Self-igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Density:</b>	Not determined
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible

**10. Stability and reactivity**

- **Stability:** Stable under normal condition.
- **Conditions to avoid:** Heat, moisture and incompatibles. Prevent smoking, fires and any other source of ignition around lead acid batteries. Battery electrolyte will react with water to produce heat. Can react with oxidizing or reducing agent. Do not allow acid to mix with any material unless the material is a known compatible.
- **Incompatible materials:** Water, potassium chlorate, potassium perchlorate, potassium permanganate, sodium, lithium, bases, organic material, halogens, metal acetylides, oxides and hydrides, metals, strong oxidizing or reducing agents.
- **Hazardous decomposition products:** Toxic fumes of oxides or sulfur when heated to decomposition. Will react with water or steam to produce toxic and corrosive fumes. Reacts with carbonates to generate carbon dioxide gas and with cyanides and sulphides to produce poisonous

hydrogen cyanide and hydrogen sulphide.

### 11. Toxicological information

- **Acute toxicity**
- **Primary irritant effect:**
  - Skin** Causes severe irritation and burns on prolonged contact..
  - Eyes** Caused severe burns. Risk of serious damage to eye.
  - Inhalation** Inhalation of mist or vapor will cause irritation of the upper respiratory tract, high concentrations may cause damage to mucous membranes and lungs.
  - Ingestion** May cause burns to mucous membranes, throat and stomach. May cause severe internal injury.
- **Additional toxicological information:**
  - Acute oral toxicity (LD50): 2140 mg/kg (rat)
  - Acute toxicity of the vapor (LD50): 320 mg/m<sup>3</sup>/2hours (mouse)  
510 mg/m<sup>3</sup>/2hours (rat)
  - (TCL0): 3 mg/m<sup>3</sup>/24w (human)

### 12. Ecological information

- **General notes:** Harmful effect due to pH shift. Implement necessary measures at the spill and disposal.

### 13. Disposal consideration

- **Product:** Dilute concentrate with water and neutralize afterwards with suitable alkali material (sodium hydroxide solution, lime). The formed neutral salts are relatively environment-friendly.
- **Uncleaned packaging:**
  - Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14. Transport information

- **UN-Number:** 2796 (Sulphuric acid with not more than 51 %)  
**Class:** 8  
**PG:** II

### 15. Regulations

- **Labelling according to Japan guidelines:**
  - Sulphuric acid is indicated as a deleterious substance by Poisonous and Deleterious Substances Control Law in Japan (exempts below concentration 10 %).
  - This product is exempted from deleterious substances.**

### 16. Other information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used as a guide. Immuno-Biological Laboratories Co., Ltd. shall not be held liable for any damage resulting from handling or contact with the above product. The burden of safe use of these materials rests solely with the user.