

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
PRODUCT CODE: MK-310WD

SDS NUMBER: SDS/ MK-310WD-00
ISSUANCE DATE: 09/04/2020

Section 1 – Identification of the Substance/Mixture and of the Company/Undertaking

Product name:	HEMOLYNAC.310
Product code:	MK-310WD
Supplier:	Nihon Kohden Middle East (Branch)
Address:	QC-4, QC-5, QC-6, QC-7 DAFZA Industrial Park. Al Qusais, Dubai U.A.E
Telephone number:	+971 4-239-9911
Fax:	+971 4-880-0122
Website for contact:	
Emergency telephone number:	+971 4-239-9911 (during working hours)
Recommended use and restrictions on use:	Hemolysing reagent for Nihon Kohden hematology analyzer

Section 2 – Hazards Identification

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to EC Regulation 1907/2006 and subsequent amendments.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication: --

2.2. Label elements.

Hazard pictograms: --
 Signal words: --
 Hazard statements: --
 Precautionary statements: --

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
PRODUCT CODE: MK-310WD

SDS NUMBER: SDS/ MK-310WD-00
ISSUANCE DATE: 09/04/2020

Safety data sheet available for professional users on request.

The product is in conformity with the requirements of in vitro diagnostic medical devices Directive 98/79/EC. Therefore, in accordance with art. 1, 5, d) of Regulation 1272/2008, CLP requirements of labeling do not apply to the product in the finished state, intended for the final user.

2.3. Other hazards.

Information not available.

Section 3 – Composition/Information on Ingredients

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
Tris (hydroxymethyl) aminomethane CAS. 77-86-1 EC. 201-064-4 INDEX. - Reg. no. -	3 - 3,5	Xi R36/37/38	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335
Dodecyltrimethylammonium chloride CAS. 112-00-5 EC. 203-927-0 INDEX. - Reg. no. -	2,5 - 3	Xn R22, Xi R36/37/38, N R50, Note	Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1
CITRIC ACID MONOHYDRATE CAS. 5949-29-1 EC. 201-069-1 INDEX. - Reg. no. 01-2119457026-42	1 - 1,5	Xi R36	Eye Irrit. 2 H319

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310

SDS NUMBER: SDS/ MK-310WD-00

PRODUCT CODE: MK-310WD

ISSUANCE DATE: 09/04/2020

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

Section 4 – First Aid Measures

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

Section 5 – Fire-fighting Measures

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310

SDS NUMBER: SDS/ MK-310WD-00

PRODUCT CODE: MK-310WD

ISSUANCE DATE: 09/04/2020

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
PRODUCT CODE: MK-310WD

SDS NUMBER: SDS/ MK-310WD-00
ISSUANCE DATE: 09/04/2020

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

Section 7 – Handling and Storage

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available

Section 8 – Exposure Controls/Personal Protection

8.1. Control parameters

Regulatory References:

GRB	United Kingdom	EH40/2005 Workplace exposure limits
IRL	Éire	Code of Practice Chemical Agent Regulations 2011
	TLV-ACGIH	ACGIH 2012

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
PRODUCT CODE: MK-310WD

SDS NUMBER: SDS/ MK-310WD-00
ISSUANCE DATE: 09/04/2020

Propan-2-ol

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m ³	ppm	mg/m ³	ppm
WEL	GRB	999	400	1250	500
OEL	IRL		200		400
TLV-ACGIH		492	200	983	400

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ;

NPI = no hazard identified

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
SDS NUMBER: SDS/ MK-310WD-00
PRODUCT CODE: MK-310WD
ISSUANCE DATE: 09/04/2020

according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Not available
Colour	Not available.
Odour	Not available.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 60 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	Not available.
Solubility	Not available.

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
SDS NUMBER: SDS/ MK-310WD-00
PRODUCT CODE: MK-310WD
ISSUANCE DATE: 09/04/2020

Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	The product is not explosive on the basis of the composition.
Oxidising properties	Not available.

9.2. Other information.

Information not available.

Section 10 – Stability and Reactivity

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

CITRIC ACID MONOHYDRATE: Avoid contact with strong bases and oxidizing agents.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

Section 11 – Toxicological Information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
SDS NUMBER: SDS/ MK-310WD-00
PRODUCT CODE: MK-310WD
ISSUANCE DATE: 09/04/2020

11.1. Information on toxicological effects.

Data available for the mixture:

ACUTE TOXICITY: no data available.

SKIN CORROSION/IRRITATION: no data available.

SERIOUS EYE DAMAGE/IRRITATION: no data available.

RESPIRATORY OR SKIN SENSITISATION: no data available.

CARCINOGENICITY: no data available.

REPRODUCTIVE TOXICITY: no data available.

STOT-SINGLE EXPOSURE: no data available.

STOT-REPEATED EXPOSURE: no data available.

ASPIRATION HAZARD: no data available.

Data available for the substances in the mixture

CITRIC ACID MONOHYDRATE (Data available in the supplier safety data sheet)

SERIOUS EYE DAMAGE/IRRITATION: Irritating to eyes, rabbit

Dodecyltrimethylammonium chloride (Data available in the supplier safety data sheet)

ACUTE TOXICITY: harmful if swallowed; LDLo oral mouse 300 mg/kg

SKIN CORROSION/IRRITATION: causes skin irritation

SERIOUS EYE DAMAGE/IRRITATION: causes serious eye irritation

Tris (hydroxymethyl) aminomethane (Data available in the supplier safety data sheet)

SKIN CORROSION/IRRITATION: skin irritant

SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation

STOT-SINGLE EXPOSURE: May cause respiratory irritation

Section 12 – Ecological Information

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CITRIC ACID MONOHYDRATE

LC50, 24 h, 1535 mg/l, Daphnia magna

LC50, >10000 mg/l, 16h, Pseudomonas putide (bacteria)

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
PRODUCT CODE: MK-310WD

SDS NUMBER: SDS/ MK-310WD-00
ISSUANCE DATE: 09/04/2020

LC50 - for Fish. 440 mg/l/96h *Leucociscus idus* (OECD TG 203)

Dodecyltrimethylammonium chloride	
EC50 - for Algae / Aquatic Plants.	> 0,19 mg/l/96h <i>Selenastrum capricornutum</i>

12.2. Persistence and degradability.

CITRIC ACID MONOHYDRATE

Rapidly biodegradable, 97%, 28d (OECD TG 301B) - 100%, 19d, (OECD TG 301E)

12.3. Bioaccumulative potential. (Data available in the supplier safety data sheet)

Dodecyltrimethylammonium chloride

Partition coefficient: n-octanol/water. 1,22 mg/l

12.4. Mobility in soil.

CITRIC ACID MONOHYDRATE: soluble in water

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

CITRIC ACID MONOHYDRATE: BOD: 526 mg/g - COD: 728 mg/g

Section 13 – Disposal Considerations

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Section 14 – Transport Information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
PRODUCT CODE: MK-310WD

SDS NUMBER: SDS/ MK-310WD-00
ISSUANCE DATE: 09/04/2020

Section 15 – Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006. None.

Substances in Candidate List (Art. 59 REACH). None.

Substances subject to authorisation (Annex XIV REACH). None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None.

Substances subject to the Rotterdam Convention: None.

Substances subject to the Stockholm Convention: None.

Healthcare controls.
 Information not available.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

Section 16 – Other Information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H319	Causes serious eye irritation
H315	Causes skin irritation
H335	May cause respiratory irritation
H302	Harmful if swallowed
H400	Very toxic to aquatic life

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R22	HARMFUL IF SWALLOWED
R36	IRRITATING TO EYES

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310
SDS NUMBER: SDS/ MK-310WD-00
PRODUCT CODE: MK-310WD
ISSUANCE DATE: 09/04/2020

 R36/37/38
 R50

 IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN
 VERY TOXIC TO AQUATIC ORGANISMS

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation - WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments
2. Directive 67/548/EEC and following amendments and adjustments
3. Regulation (EU) 1907/2006 (REACH) of the European Parliament
4. Regulation (EU) 1272/2008 (CLP) of the European Parliament
5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament

SAFETY DATA SHEET

PRODUCT NAME: HEMOLYNAC.310

SDS NUMBER: SDS/ MK-310WD-00

PRODUCT CODE: MK-310WD

ISSUANCE DATE: 09/04/2020

6. Regulation (EU) 453/2010 of the European Parliament
 7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - Niosh - Registry of Toxic Effects of Chemical Substances
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.