**XLS071L WESTAR NOVA 2.0 - Luminol Solution** 

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

Page n. 1/13 Replaced revision:4 (Dated: 03/10/2018)

Safety Data Sheet According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:

XLS071L

Product name:

WESTAR NOVA 2.0 - Luminol Solution

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

Intended use:

**Research Reagent** 

### 1.3. Details of the supplier of the safety data sheet

Name: Full address: District and Country:	CYANAGEN S.R.L. Via Andrea Costa 4/2 40134 Bologna (BO) Italia		
	Tel. +39 051.534063 mon-thu 9:00-17:00, fri 9:00-13:00		
	Fax +39 051.534063		
e-mail address of the competent person responsible for the Safety Data Sheet:	technical.support@cyanagen.com		

### 1.4. Emergency telephone number

For urgent inquiries refer to: +39051534063

## Revision nr. 5 **CYANAGEN S.R.L.** Dated 07/02/2023 Printed on 13/02/2023 XLS071L WESTAR NOVA 2.0 - Luminol Solution Page n. 2/13 Replaced revision:4 (Dated: 03/10/2018) **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). 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 (EU) Regulation 2020/878. Hazard classification and indication: 2.2. Label elements Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements. Hazard pictograms: Signal words: Hazard statements: EUH210 Safety data sheet available on request. Precautionary statements: ---2.3. Other hazards On the basis of available data, the product does not contain any PBT or vPvB in percentage $\geq$ than 0,1%. The product does not contain substances with endocrine disrupting properties in concentration $\geq 0.1\%$ .

### SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
TRIS		
INDEX -	1,5 ≤ x < 2	Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC 201-064-4		
CAS 77-86-1		
ETHANEDIOL		
INDEX 603-027-00-1	1 ≤ x < 1,5	Acute Tox. 4 H302, STOT RE 2 H373
EC 203-473-3		STA Oral: 500 mg/kg
CAS 107-21-1		

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

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

## **XLS071L WESTAR NOVA 2.0 - Luminol Solution**

Page n. 3/13

Replaced revision:4 (Dated: 03/10/2018)

### **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.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

### **SECTION 5. Firefighting measures**

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT None in particular.

#### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE 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 selfcontained 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.

Revision nr. 5

Dated 07/02/2023

### Printed on 13/02/2023

Page n. 4/13 Replaced revision:4 (Dated: 03/10/2018)

## **XLS071L WESTAR NOVA 2.0 - Luminol Solution**

#### 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

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. 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. 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:** 

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία``»
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733

Revision nr. 5

Dated 07/02/2023

#### Printed on 13/02/2023

Page n. 5/13

Replaced revision:4 (Dated: 03/10/2018)

## **XLS071L WESTAR NOVA 2.0 - Luminol Solution**

GBR United Kingdom OEL EU EH40/2005 Workplace exposure limits (Fourth Edition 2020) Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC. ACGIH 2021

EU TLV-ACGIH

### ETHANEDIOL

Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	26	10	52	20	SKIN	
MAK	DEU	26	10	52	20	SKIN	
VLA	ESP	52	20	104	40	SKIN	
VLEP	FRA	52	20	104	40	SKIN	
TLV	GRC	125	50	125	50		
VLEP	ITA	52	20	104	40	SKIN	
VLE	PRT	52	20	104	40	SKIN	
NDS/NDSCh	POL	15		50		SKIN	
MV	SVN	52	20	104	40	SKIN	
ESD	TUR	52	20	104	40	SKIN	
WEL	GBR	52	20	104	40	SKIN	
OEL	EU	52	20	104	40	SKIN	
TLV-ACGIH			25		50		
TLV-ACGIH				10		INHAL	

Legend:

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

### 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.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

### 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 Regulation 2016/425 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 A

XLS071L WESTAR NOVA 2.0 - Luminol Solution

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

#### Page n. 6/13

Replaced revision:4 (Dated: 03/10/2018)

filter whose class (1, 2 or 3) must be chosen 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

Properties Appearance	<b>Value</b> liquid	I
Colour	From trasparent to slightly purplish	
Odour	odourless	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
рН	9,55	
Kinematic viscosity	not available	
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	0,999	
Relative vapour density	not available	
Particle characteristics	not applicable	

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

Information

XLS071L WESTAR NOVA 2.0 - Luminol Solution

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

### Page n. 7/13 Replaced revision:4 (Dated: 03/10/2018)

### **SECTION 10. Stability and reactivity**

### 10.1. Reactivity

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

### ETHANEDIOL

In the air absorbs moisture. Decomposes at temperatures above 200°C/392°F.

#### 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.

#### ETHANEDIOL

Risk of explosion on contact with: perchloric acid. May react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive mixtures with: air.

#### 10.4. Conditions to avoid

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

#### **ETHANEDIOL**

Avoid exposure to: sources of heat, naked flames.

### 10.5. Incompatible materials

Information not available

### 10.6. Hazardous decomposition products

ETHANEDIOL

May develop: hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

### **SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Revision nr. 5

Dated 07/02/2023

### Printed on 13/02/2023

Page n. 8/13 Replaced revision:4 (Dated: 03/10/2018)

## **XLS071L WESTAR NOVA 2.0 - Luminol Solution**

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

ETHANEDIOL WORKERS: inhalation; contact with the skin. POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### **ETHANEDIOL**

Ingestion initially stimulates the central nervous system; later replaced by a phase of depression. There may be kidney damage, with anuria and uremia. Over-exposure symptoms are: vomiting, drowsiness, difficulty in breathing, convulsions. The lethal dose for humans is approx. 1.4 ml/kg.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: ATE (Oral) of the mixture: ATE (Dermal) of the mixture:

TRIS

LD50 (Oral):

ETHANEDIOL

LD50 (Dermal): LD50 (Oral): STA (Oral): Not classified (no significant component) >2000 mg/kg Not classified (no significant component)

5000 mg/kg rat

9530 mg/kg Rabbit > 2000 mg/kg Rat 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

### **SKIN CORROSION / IRRITATION**

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

XLS071L WESTAR NOVA 2.0 - Luminol Solution

Revision nr. 5

Dated 07/02/2023

### Printed on 13/02/2023

### Page n. 9/13 Replaced revision:4 (Dated: 03/10/2018)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

#### **ETHANEDIOL**

Available studies have shown no carcinogenic potential. In a carcinogenicity study lasting two years, carried out by the US National Toxicology Program (NTP), in which ethylene glycol was administered in the feed, "no evidence of carcinogenic activity" in male and female B6C3F1 mice was observed (NTP, 1993).

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### **ASPIRATION HAZARD**

Does not meet the classification criteria for this hazard class

### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

### **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

### 12.1. Toxicity

Information not available

### 12.2. Persistence and degradability

ETHANEDIOL Solubility in water Rapidly degradable

1000 - 10000 mg/l

**XLS071L WESTAR NOVA 2.0 - Luminol Solution** 

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

Page n. 10/13 Replaced revision:4 (Dated: 03/10/2018)

#### 12.3. Bioaccumulative potential

ETHANEDIOL

Partition coefficient: n-octanol/water

12.4. Mobility in soil

Information not available

### 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 ≥ than 0,1%.

-1,36

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

### 12.7. Other adverse effects

Information not available

### **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. 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.

### 14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

## XLS071L WESTAR NOVA 2.0 - Luminol Solution

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

Page n. 11/13 Replaced revision:4 (Dated: 03/10/2018)

### 14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

### **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Contained substance

Point

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

75

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

**XLS071L WESTAR NOVA 2.0 - Luminol Solution** 

Revision nr. 5

Dated 07/02/2023

### Printed on 13/02/2023

Page n. 12/13 Replaced revision:4 (Dated: 03/10/2018)

None

Healthcare controls

Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

### **SECTION 16. Other information**

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

Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
EUH210	Safety data sheet available on request.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation

## XLS071L WESTAR NOVA 2.0 - Luminol Solution

Revision nr. 5

Dated 07/02/2023

Printed on 13/02/2023

Page n. 13/13 Replaced revision:4 (Dated: 03/10/2018)

- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament

- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
- Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
   Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP) 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2019/521 (XII Atp. CLP) 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
   Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP) 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review: The following sections were modified: 01 / 02 / 03 / 08 / 09 / 11 / 12 / 15 / 16.

Revision nr. 4

Dated 06/02/2024 Printed on 06/02/2024

# XLS071P - Westar Nova 2.0 – Peroxide Solution

Page n. 1/10

Replaced revision:3 (Dated: 03/10/2018)

Safety Data Sheet According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH				
SECTION 1. Identification of the sub	stance/mixture and of the company/undertaking			
1.1. Product identifier				
Code:	XLS071P			
Product name:	Westar Nova 2.0 – Peroxide Solution			
1.2. Relevant identified uses of the substance or n	mixture and uses advised against			
Intended use:	Research Reagent			
1.3. Details of the supplier of the safety data shee	t			
Name: Full address: District and Country:	CYANAGEN S.R.L. Via Andrea Costa 4/2 40134 Bologna (BO) Italia			
	Tel. +39 051.534063 mon-thu 9:00-17:00, fri 9:00-13:00			
e-mail address of the competent person	Fax +39 051.534063 technical.support@cyanagen.com			
responsible for the Safety Data Sheet:				
1.4. Emergency telephone number				
For urgent inquiries refer to:	Israel +972-04-7771900 (24/7) UK NPIS 0344 892 0111 Ireland NPIC (01) 809 2566 Tox Info Suisse 145, h 24			
SECTION 2. Hazards identification				
2.1. Classification of the substance or mixture				
	the provisions set forth in EC Regulation 1272/2008 (CLP). cances in concentrations such as to be declared in section no. 3, it requires a safety data sheet ation 2020/878.			
2.2. Label elements				
Hazard labelling pursuant to EC Regulation 1272/200	8 (CLP) and subsequent amendments and supplements.			
Hazard pictograms:				
Signal words:				
Hazard statements: EUH210 Safety data sheet avai	lable on request.			

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024 Page n 2/10

Replaced revision:3 (Dated: 03/10/2018)

Precautionary statements:

### 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

### **SECTION 3. Composition/information on ingredients**

---

### 3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
Sodium perborate tetrahydrate		
INDEX 005-017-00-7	0,1 ≤ x < 0,15	Ox. Liq. 2 H272, Repr. 1A H360Df, Acute Tox. 4 H302, Eye Dam. 1 H318, STOT SE 3 H335
EC 239-172-9		LD50 Oral: 1200 mg/kg
CAS 10486-00-7		
REACH Reg. 01-2119516039-43		

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

### **SECTION 4. First aid measures**

### 4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

### **SECTION 5. Firefighting measures**

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT None in particular.

### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE 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

Revision nr. 4

Dated 06/02/2024 Printed on 06/02/2024

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Page n. 3/10 Replaced revision:3 (Dated: 03/10/2018)

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

Use breathing equipment if fumes or powders are released into the air. 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

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. 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:

ΕU OEL EU

Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

### Sodium perborate tetrahydrate

Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
						Observations	
		mg/m3	ppm	mg/m3	ppm		
OEL	EU	2		6		RESP	

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024

Page n. 4/10 Replaced revision:3 (Dated: 03/10/2018)

Legend:

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

### 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.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

### 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 Regulation 2016/425 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 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 137). 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

<b>Properties</b> Appearance	<b>Value</b> liquid	Information
Colour	colourless	
Odour	odourless	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
рН	5,00	
Kinematic viscosity	not available	

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024 Page n 5/10

Replaced revision:3 (Dated: 03/10/2018)

Solubility	not available
Partition coefficient: n-octanol/water	not available
Vapour pressure	not available
Density and/or relative density	not available
Relative vapour density	not available
Particle characteristics	not applicable

### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

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.

Sodium perborate tetrahydrate

Reacts with: metals, reducing substances, combustible substances.

### 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.

Sodium perborate tetrahydrate

Avoid exposure to: air.

#### 10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

### **SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024 Page n 6/10

Replaced revision:3 (Dated: 03/10/2018)

toxicological effects of exposure to the product.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: ATE (Oral) of the mixture: ATE (Dermal) of the mixture:

Sodium perborate tetrahydrate

LD50 (Dermal): LD50 (Oral): > 2000 mg/kg Rabbit 1200 mg/kg Rat

Not classified (no significant component)

Not classified (no significant component)

Not classified (no significant component)

#### **SKIN CORROSION / IRRITATION**

Does not meet the classification criteria for this hazard class

**SERIOUS EYE DAMAGE / IRRITATION** 

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024 Page n 7/10

Replaced revision:3 (Dated: 03/10/2018)

### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

### **SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

51 mg/l/96h Danio rerio (zebra fish)

11 mg/l/48h Daphnia magna (Water flea)

### 12.1. Toxicity

Sodium perborate tetrahydrate

LC50 - for Fish

EC50 - for Crustacea

12.2. Persistence and degradability

Information not available

### 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 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 ≥ than 0,1%.

### 12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

### 12.7. Other adverse effects

Information not available

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

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024 Page n 8/10

Replaced revision:3 (Dated: 03/10/2018)

### **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.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

### **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

 Contained substance

 Point
 75

 Point
 30
 Sodium perborate tetrahydrate REACH Reg.: 01-2119516039-43

 Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
 on applicable

 Substances in Candidate List (Art. 59 REACH)
 sodium perborate tetrahydrate

 REACH Reg.: 01-2119516039-43
 substances subject to authorisation (Annex XIV REACH)

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024 Page n 9/10

Replaced revision:3 (Dated: 03/10/2018)

Sodium perborate tetrahydrate

REACH Reg.: 01-2119516039-43

Sunset Date: 27/05/2023

Substances subject to exportation reporting pursuant to Regulation (EU) 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

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

### **SECTION 16.** Other information

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

Ox. Liq. 2	Oxidising liquid, category 2
Repr. 1A	Reproductive toxicity, category 1A
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H272	May intensify fire; oxidiser.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
EUH210	Safety data sheet available on request.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

- ATE: Acute Toxicity Estimate

- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: Identifier in Annex VI of CLP

## XLS071P - Westar Nova 2.0 – Peroxide Solution

Revision nr. 4

Dated 06/02/2024

Printed on 06/02/2024

Replaced revision:3 (Dated: 03/10/2018)

- 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: Regulation (EC) 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: Time-weighted average exposure limit - TWA STEL: Short-term exposure limit - VOC: Volatile organic Compounds - vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation - WGK: Water hazard classes (German). GENERAL BIBLIOGRAPHY 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation) 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament 12. Regulation (EU) 2016/1179 (IX Atp. CLP) 13. Regulation (EU) 2017/776 (X Atp. CLP) 14. Regulation (EU) 2018/669 (XI Atp. CLP) 15. Regulation (EU) 2019/521 (XII Atp. CLP) 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP) 17. Regulation (EU) 2019/1148 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP) 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP) 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP) 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP) 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP) - The Merck Index. - 10th Edition - Handling Chemical Safety - INRS - Fiche Toxicologique (toxicological sheet) - Patty - Industrial Hygiene and Toxicology - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition - IFA GESTIS website - ECHA website - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy 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. CALCULATION METHODS FOR CLASSIFICATION Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9. Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11. Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12. Changes to previous review: The following sections were modified: 01/02/03/08/09/10/11/12/15/16.