Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name	:	TRYPLOSAN
UFI	:	XQ20-JM3J-JK0X-MVVJ
Product code	:	119268E
Use of the Substance/Mixture	:	Laundry product
Substance type:	:	Mixture
		For professional users only.
Product dilution information	:	No dilution information provided.

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

Identified uses	:	Laundry aid (non-gasing). Semi automatic process
Recommended restrictions on use	:	Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company	:	Ecolab Deutschland GmbH Ecolab-Allee 1 40789 Monheim am Rhein, Germany +49 (0)2173 599 0 OfficeService.DEDUS@ecolab.com

1.4 Emergency telephone number

Emergency telephone number	:	+32-(0)3-575-5555 Trans-european, German speaking, 24/7 or +49 32 212249407 German speaking, 24/7
Poison Information Centre telephone number	:	+49 (0)551 38318854

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Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

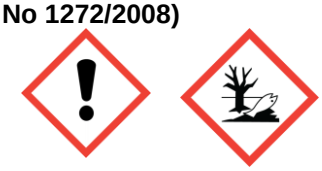
Eye irritation, Category 2	H319
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335

Acute aquatic toxicity, Category 1	H400
Chronic aquatic toxicity, Category 1	H410

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Warning

Hazard Statements :	H319	Causes serious eye irritation.
	H335	May cause respiratory irritation.
	H410	Very toxic to aquatic life with long lasting effects.
Supplemental Hazard Statements :	EUH031	Contact with acids liberates toxic gas.
Precautionary Statements :	**Prevention:**	
	P261	Avoid breathing dust.
	P273	Avoid release to the environment.
	P280e	Wear eye protection/face protection.

Hazardous components which must be listed on the label:
Sodium dichloro-s-triazinetrione dihydrate

2.3 Other hazards

Mixing this product with acid or ammonia releases chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
Sodium dichloro-s-triazinetrione dihydrate	51580-86-0 220-767-7 01-2119489371-33	Acute toxicity Category 4; H302 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H335 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410 Specific target organ toxicity - single exposure Category 3 H335 >= 10 % EUH031 >= 10 %	>= 30 - < 50
Sodium Carbonate	497-19-8 207-838-8 01-2119485498-19	Eye irritation Category 2; H319	>= 2.5 - < 5

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
In case of skin contact	:	Rinse with plenty of water.
If swallowed	:	Rinse mouth. Get medical attention if symptoms occur.
If inhaled	:	Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Exposure to decomposition products may be a hazard to health.
Hazardous combustion products	:	Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) metal oxides Hydrogen chloride

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Use personal protective equipment.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel	:	Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Advice for emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Environmental precautions	:	Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	:	Avoid contact with skin and eyes. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe dust. Mixing this product with acid or ammonia releases chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
Storage temperature	:	0 °C to 25 °C

7.3 Specific end uses

Specific use(s)	:	Laundry aid (non-gasing). Semi automatic process

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL

Sodium Carbonate	:	End Use: Workers

		Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 10 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Acute local effects Value: 10 mg/m3

8.2 Exposure controls

Appropriate engineering controls

Engineering measures	:	Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Individual protection measures

Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.
Eye/face protection (EN 166)	:	Safety glasses with side-shields
Hand protection (EN 374)	:	No special protective equipment required.
Skin and body protection (EN 14605)	:	No special protective equipment required.
Respiratory protection (EN 143, 14387)	:	When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:A

Environmental exposure controls

General advice	:	Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	solid
Colour	:	white
Odour	:	Chlorine
pH	:	8, 1 %
Particle characteristics		
Assessment	:	no data available
Particle size	:	no data available
Particle Size Distribution	:	no data available
Dustiness	:	no data available

Specific surface area	:	no data available
Surface charge/Zeta potential	:	no data available
Shape	:	no data available
Crystallinity	:	no data available
Surface treatment /Coatings	:	no data available
Flash point	:	Not applicable.
Odour Threshold	:	Not applicable and/or not determined for the mixture
Melting point/freezing point	:	Not applicable and/or not determined for the mixture
Boiling point, initial boiling point and boiling range	:	Not applicable and/or not determined for the mixture
Evaporation rate	:	Not applicable and/or not determined for the mixture
Flammability	:	Not applicable and/or not determined for the mixture
Upper explosion limit	:	Not applicable and/or not determined for the mixture
Lower explosion limit	:	Not applicable and/or not determined for the mixture
Vapour pressure	:	Not applicable and/or not determined for the mixture
Relative vapour density	:	Not applicable and/or not determined for the mixture
Density and / or relative density	:	Not applicable and/or not determined for the mixture
Water solubility	:	soluble
Solubility in other solvents	:	Not applicable and/or not determined for the mixture
Partition coefficient: n-octanol/water (log value)	:	Not applicable and/or not determined for the mixture
Auto-ignition temperature	:	Not applicable and/or not determined for the mixture
Thermal decomposition	:	Not applicable and/or not determined for the mixture
Viscosity, kinematic	:	Not applicable and/or not determined for the mixture
Explosive properties	:	Not applicable and/or not determined for the mixture
Oxidizing properties	:	Not applicable and/or not determined for the mixture

9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Mixing this product with acid or ammonia releases chlorine gas.

10.4 Conditions to avoid

Exposure to sunlight.
Heat.
moisture

10.5 Incompatible materials

Aluminium
Zinc(Zn)
Acids

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NOx)
Hydrogen chloride
metal oxides

Section: 11. TOXICOLOGICAL INFORMATION

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

Information on likely routes of exposure	:	Inhalation, Eye contact, Skin contact

Product

Acute oral toxicity	:	Acute toxicity estimate : > 2,000 mg/kg
Acute inhalation toxicity	:	There is no data available for this product.
Acute dermal toxicity	:	There is no data available for this product.
Skin corrosion/irritation	:	There is no data available for this product.
Serious eye damage/eye irritation	:	There is no data available for this product.
Respiratory or skin sensitization	:	There is no data available for this product.
Carcinogenicity	:	There is no data available for this product.
Reproductive effects	:	There is no data available for this product.
Germ cell mutagenicity	:	There is no data available for this product.
Teratogenicity	:	There is no data available for this product.
STOT - single exposure	:	There is no data available for this product.
STOT - repeated exposure	:	There is no data available for this product.

Aspiration toxicity	:	There is no data available for this product.

Components

Acute oral toxicity	:	Sodium dichloro-s-triazinetrione dihydrate LD50 rat: 1,823 mg/kg Sodium Carbonate LD50 rat: 2,800 mg/kg

Components

Acute dermal toxicity	:	Sodium dichloro-s-triazinetrione dihydrate LD50 rat: > 5,000 mg/kg

Potential Health Effects

Eyes	:	Causes serious eye irritation.
Skin	:	Health injuries are not known or expected under normal use.
Ingestion	:	Health injuries are not known or expected under normal use.
Inhalation	:	May cause respiratory tract irritation. May cause nose, throat, and lung irritation.
Chronic Exposure	:	Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact	:	Redness, Pain, Irritation
Skin contact	:	No symptoms known or expected.
Ingestion	:	No symptoms known or expected.
Inhalation	:	Respiratory irritation, Cough

11.2 Information on other hazards

Further information	:	no data available

Section: 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Environmental Effects	:	Very toxic to aquatic life with long lasting effects.

Product

Toxicity to fish	:	no data available
Toxicity to daphnia and other aquatic invertebrates	:	no data available
Toxicity to algae	:	no data available

Components

Toxicity to fish	:	Sodium dichloro-s-triazinetrione dihydrate 96 h LC50 Oncorhynchus mykiss (rainbow trout): 0.24 mg/l Sodium Carbonate 96 h LC50 Lepomis macrochirus (Bluegill sunfish): 300 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Sodium dichloro-s-triazinetrione dihydrate
48 h EC50 Daphnia magna (Water flea): 0.196 mg/l

Sodium Carbonate
48 h EC50 Ceriodaphnia (water flea): 213.5 mg/l

Components

Toxicity to algae : Sodium dichloro-s-triazinetrione dihydrate
72 h EC50 Skeletonema costatum (marine diatom): > 100 mg/l

12.2 Persistence and degradability

Product

no data available

Components

Biodegradability : Sodium dichloro-s-triazinetrione dihydrate
Result: Poorly biodegradable

Sodium Carbonate
Result: Not applicable - inorganic

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste.Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product	:	Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations Dispose of wastes in an approved waste disposal facility.
Contaminated packaging	:	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.
Guidance for Waste Code selection	:	Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number or ID number	:	3077
14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium dichloroisocyanurate dihydrat)
14.3 Transport hazard class(es)	:	9
14.4 Packing group	:	III
14.5 Environmental hazards	:	Yes
14.6 Special precautions for user	:	None

Air transport (IATA)

14.1 UN number or ID number	:	3077
14.2 UN proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Sodium dichloroisocyanurate dihydrat)
14.3 Transport hazard class(es)	:	9
14.4 Packing group	:	III
14.5 Environmental hazards	:	Yes
14.6 Special precautions for user	:	None

Sea transport (IMDG/IMO)

14.1 UN number or ID number	:	3077

14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Sodium dichloroisocyanurate dihydrat)
14.3 Transport hazard class(es)	:	9
14.4 Packing group	:	III
14.5 Environmental hazards	:	Yes
14.6 Special precautions for user	:	None
14.7 Maritime transport in bulk according to IMO instruments	:	Not applicable.

Section: 15. REGULATORY INFORMATION

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

according to Detergents Regulation EC 648/2004	:	30 % and more: Chlorine-based bleaching agents
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	:	ENVIRONMENTAL HAZARDS E1 Lower tier : 100 t Upper tier : 200 t
Candidate List of Substances of Very High Concern for Authorisation	:	Not applicable.

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

Hazard class for water	:	WGK 2 Classification according to AwSV, Annex 1
German storage class	:	13

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Eye irritation 2, H319	Calculation method
Specific target organ toxicity - single exposure 3, H335	Calculation method
Acute aquatic toxicity 1, H400	Calculation method
Chronic aquatic toxicity 1, H410	Calculation method

Full text of H-Statements

H302	Harmful if swallowed.
H319	Causes serious eye irritation.

H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenarios

Exposure Scenario: Laundry aid (non-gasing). Semi automatic process

Product category	:	**PC35**	Washing and cleaning products (including solvent based products)

Contributing scenario controlling worker exposure for:

Process category	:	**PROC8a**	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
Exposure duration	:	60 min	
Operational conditions and risk management measures	:	Indoor	
		Local Exhaust Ventilation is not required	
General ventilation		Ventilation rate per hour	1
Skin Protection	:	see section 8	
Respiratory Protection	:	see section 8	

Contributing scenario controlling worker exposure for:

Process category	:	**PROC1**	Use in closed process, no likelihood of exposure
Exposure duration	:	480 min	
Operational conditions and risk management measures	:	Indoor	
		Local Exhaust Ventilation is not required	
General ventilation		Ventilation rate per hour	1
Skin Protection	:	see section 8	
Respiratory Protection	:	see section 8	