

Niagara Cyan

Safety Data Sheet

according to Regulation (EU) No.2015/830
Date of issue: 07/11/2016 Revision date: 26/04/2017 Supersedes: 16/03/2017
Version: 2.0



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Niagara Cyan, CR1

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Inkjet printing

1.2.2. Uses advised against

Restrictions on use : No additional information available

1.3. Details of the supplier of the safety data sheet

Memjet, Ltd.
61-62 Fitzwilliam Lane
Dublin 2 - Ireland
T +353 1 678 0420
msds@memjet.com - www.memjet.com

1.4. Emergency telephone number

For Hazardous Materials Incidents (spill, leak, fire, exposure, or accident) call:

CHEMTREC, U.S.: 1-800-424-9300 International: +1-703-527-3887 Hours of Operation: 24/7

Country	Organisation/Company	Address	Emergency number
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital, Guy's & St Thomas' Hospital Trust	Dudley Road B18 7QH Birmingham	0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labeling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS No) 7732-18-5 (EC no) 231-791-2	79	Not classified
Glycerol	(CAS No) 56-81-5 (EC no) 200-289-5	3	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Gently wash with plenty of soap and water.

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First-aid measures after eye contact : If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Symptoms/injuries after skin contact : None.

Symptoms/injuries after eye contact : None.

Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No particular fire or explosion hazard.

Explosion hazard : Product is not explosive.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use extinguishing media appropriate for surrounding fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. **Wear fire/flame resistant/retardant clothing. Wear a self-contained breathing apparatus. EN469.**

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Avoid contact with skin and eyes.

Emergency procedures : Take up small spills with dry chemical absorbent.

6.1.2. For emergency responders

Protective equipment : Avoid all eye and skin contact and do not breathe vapour and mist.

Emergency procedures : Take up small spills with dry chemical absorbent.

6.2. Environmental precautions

Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Small spills: **Wipe up with absorbent material (e.g. cloth, fleece).**

6.4. Reference to other sections

Section 7: safe handling.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place.

Incompatible products : None known.

7.3. Specific end use(s)

Ink.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycerol (56-81-5)		
Belgium	Limit value (mg/m ³)	10 mg/m ³
Belgium	Remark (BE)	(brouillard)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	10 mg/m ³
Czech Republic	Expoziční limity (PEL) (ppm)	2.44 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m ³)	15 mg/m ³

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Glycerol (56-81-5)		
Czech Republic	Expoziční limity (NPK-P) (ppm)	3.66 ppm
Finland	HTP-arvo (8h) (mg/m ³)	20 mg/m ³
France	VME (mg/m ³)	10 mg/m ³
France	Note (FR)	(aérosols de)
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³
Poland	NDS (mg/m ³)	10 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	10 mg/m ³
Spain	VLA-ED (mg/m ³)	10 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³
Switzerland	VME (mg/m ³)	50 mg/m ³
Switzerland	VLE (mg/m ³)	100 mg/m ³
Switzerland	Remark (CH)	(inhalable aerosol)
Canada (Quebec)	VEMP (mg/m ³)	10 mg/m ³
USA - ACGIH	Local name	Glycerin mist
USA - ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
USA - ACGIH	Remark (ACGIH)	URT irr
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total) 5 mg/m ³ (respirable fraction)

8.2. Exposure controls

Appropriate engineering controls:

Avoid creating mist or spray. Avoid splashing. Either local exhaust or general room ventilation is usually required.

Hand protection:

Wear suitable gloves resistant to chemical penetration. nitrile rubber gloves. EN374

Eye protection:

Eye protection should only be necessary where liquid could be splashed or sprayed. EN166

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Blue liquid.
Colour	: Blue.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 7.1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: > 1
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Under normal conditions of storage and use, hazardous reactions will not occur.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Glycerol (56-81-5)	
LD50 oral rat	5570 mg/kg
Water (7732-18-5)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 6 mg/l/4h
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 6 mg/l/4h

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential adverse human health effects and symptoms	: None under normal use.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Glycerol (56-81-5)	
LC50 fish 1	68 - 72 mg/l

12.2. Persistence and degradability

Niagara Cyan	
Persistence and degradability	Not established.
Glycerol (56-81-5)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Not established.

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

Component	
Glycerol (56-81-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Do not discharge into drains or the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose in household garbage. Dispose in a safe manner in accordance with local/national regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not regulated

UN-No. (IMDG) : Not regulated

UN-No. (IATA) : Not regulated

UN-No. (ADN) : Not regulated

UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated

Proper Shipping Name (IMDG) : Not regulated

Proper Shipping Name (IATA) : Not regulated

Proper Shipping Name (ADN) : Not regulated

Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated.

IATA

Transport hazard class(es) (IATA) : Not regulated.

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

Packing group (ADN) : Not regulated

Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated.

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- [Air transport](#)

Not regulated.

- [Inland waterway transport](#)

Not regulated

- [Rail transport](#)

Not regulated

[14.7. Transport in bulk according to Annex II of Marpol and the IBC Code](#)

Not applicable

SECTION 15: Regulatory information

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

[15.1.1. EU-Regulations](#)

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

[15.1.2. National regulations](#)

Germany

VwVwS Annex reference : **Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)**

12th Ordinance implementing the Federal Immission Control Act - 12.BImSchV : **Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)**

Netherlands

SZW-lijst van kankerverwekkende stoffen : **None of the components are listed**

SZW-lijst van mutagene stoffen : **None of the components are listed**

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : **None of the components are listed**

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : **None of the components are listed**

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : **None of the components are listed**

[15.2. Chemical safety assessment](#)

No additional information available

SECTION 16: Other information

Indication of changes:

Section	Change	Comments
2, 3, 4, 11, 15, 16	Modified	Classification and related information due to change to non-hazardous ink component.

Abbreviations and acronyms:

ACGIH	American Conference of Government Industrial Hygienists
ATE	Acute Toxicity Estimate
CAS	(Chemical Abstracts Service) number
CLP	Classification, Labelling, Packaging.
EC50	Environmental Concentration associated with a response by 50% of the test population.
GHS	Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50	Lethal Dose for 50% of the test population
NOAEL	No Observable Adverse Effect Level
TWA	Time Weighted Average

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Data sources : ACGIH (American Conference of Government Industrial Hygienists).
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.
Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
Manufacturer Information.
US National Library of Medicine National Institutes of Health Haz-Map. Accessed at <http://hazmap.nlm.nih.gov>

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Not classified		Calculation method
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SDS EU (REACH Annex II)

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product