

Safety Data Sheet

According to Regulation (EC) No 1272/2008 (CLP) and (EC) No 1907/2006 (REACH)

Initial preparation date: 01.08.2018

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x-nano™ JetFix 2A

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

1.1 Product identifier

Product Name: x-nano™ Universal JetFix 2A

Product code: xnJF-0101

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

Relevant identified uses: Inkjet printing

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

1.3 Details of the manufacturer/supplier of the safety data sheet

Supplier:

United States

Diversified NANO Solutions Corporation

13446 Poway Road

Suite 202

Poway, CA 92064

1-858-924-1005

info@diversifiednano.com

1.4 Emergency telephone number:

United States

Emergency Telephone

1-800-424-9300

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No1278/2008 (CLP): Not classified

Hazard-determining components of labeling: None

2.2 Label elements

Hazard pictograms: None

Signal word: None

Hazard statements: None

Precautionary statements: None

2.3 Other hazards: None known

SECTION 3: Composition/information on ingredients

3.1 Substance: Not applicable.

3.2 Mixture:

Identification	Name	Classification according to Regulation (EC) No1278/2008 (CLP)	Weight %
CAS number: 7732-18-5 EC number: 231-791-2	Water	Not classified	80-98
CAS number: 56-81-5 EC number: 200-289-5	Glycerol	Not classified	1-10

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Additional information: None

Full Text of H and EUH statements: See section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Not determined or not available.

Following inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

Get medical advice/attention if you feel unwell

Following skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

Following eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Following ingestion:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing media:

Not determined or not applicable.

5.2 Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Personal protection equipment:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

Special precautions:

Not determined or not applicable.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

- Ensure adequate ventilation.
- Ensure air handling systems are operational.
- Wear protective eye wear, gloves and clothing.

6.2 Environmental precautions:

- Should not be released into the environment.
- Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:

- Wear protective eye wear, gloves and clothing.
- Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders).
- Dispose of contents / container in accordance with local regulations.

6.4 Reference to other sections:

- Not determined or not applicable.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

- Use only with adequate ventilation.
- Avoid breathing mist or vapor.
- Do not eat, drink, smoke or use personal products when handling chemical substances.

7.2 Conditions for safe storage, including any incompatibilities:

- Keep container tightly sealed.
- Protect from freezing and physical damage.
- Store in a cool, well-ventilated area.

7.3 Specific end use(s):

- Not determined or not applicable.

SECTION 8: Exposure controls/personal protection



8.1 Control parameters

Only those substances with limit values have been included below.

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Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Croatia	Glycerol	56-81-5	Maximum (8 hr) allowable concentration: 10 mg/m ³
Cyprus	Glycerol	56-81-5	8-hour TWA : 2 mg/m ³
Czech Republic	Glycerol	56-81-5	8-hour TWA: 10 mg/m ³
Estonia	Glycerol	56-81-5	8-hour TWA: 10 mg/m ³
Poland	Glycerol	56-81-5	8-hour TWA (NDS): 10 mg/m ³ (inhalable fraction)
	Glycerol	56-81-5	8-hour TWA (NDS): 2 mg/m ³ (Organic dusts of animal and vegetable origin, containing 10% or more of free silica, inhalable fraction)
	Glycerol	56-81-5	8-hour TWA (NDS): 2 mg/m ³ (Organic dusts of animal and vegetable origin, containing less than 10% of free silica, respirable fraction)
	Glycerol	56-81-5	8-hour TWA: 4 mg/m ³ (Organic dusts of animal and vegetable origin, containing less than 10% of free silica, inhalable fraction)
	Glycerol	56-81-5	8-hour TWA (NDS): 1 mg/m ³ (Organic dusts of animal and vegetable origin, containing 10% or more of free silica, respirable fraction)
Slovakia	Glycerol	56-81-5	8-hour TWA (NPEL): 10 mg/m ³
Belgium	Glycerol	56-81-5	8-hour TWA: 10 mg/m ³
Denmark	Glycerol	56-81-5	TWA: 3 mg/m ³
Finland	Glycerol	56-81-5	8-hour limit: 20 mg/m ³
France	Glycerol	56-81-5	Time weighted average (VME): 10 mg/m ³
Germany	Glycerol	56-81-5	8-hour TWA: 200 mg/m ³
Greece	Glycerol	56-81-5	8-hour TWA: 10 mg/m ³
Ireland	Glycerol	56-81-5	8-hour OEL (TWA): 10 mg/m ³
Portugal	Glycerol	56-81-5	8-hour exposure limit: 10 mg/m ³
Spain	Glycerol	56-81-5	8-hour daily exposure limit (VLA_ED): 10 mg/m ³
United Kingdom	Glycerol	56-81-5	TWA: 10 mg/m ³

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

Not determined or not applicable.

Predicted No Effect Concentration (PNEC):

Not determined or not applicable.

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls Biological

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monitoring may also be appropriate for some substances

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

Environmental exposure controls:

Select controls based on a risk assessment of local conditions.

See section 6 for information on accidental release measures.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Black liquid
Odor	Odorless
Odor threshold	Not determined or not available.
pH	7.0-8.0
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	96.1 - 97.8 °C
Flash point (closed cup)	148.9 °C
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	1
Density	Not determined or not available.
Relative density	1.00 - 1.20 g/ml
Solubilities	Soluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	2.0 – 6.5 cPs

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Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

9.2 Other information

Volatile Organic Compound	3.0
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SECTION 10: Stability and reactivity

10.1 Reactivity:

Reactions may occur with strong oxidizers

10.2 Chemical stability: Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions: None under normal conditions of use and storage.

10.4 Conditions to avoid:

Avoid contact with strong oxidizers

10.5 Incompatible materials:

Keep away from strong oxidizers

10.6 Hazardous decomposition products:

Oxides of carbon and water

SECTION 11: Toxicological information

11.1 Information on toxicological effects Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

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Product data: No data available.

Substance data: No data available.

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity Product data: No data available.

Substance data: No data available.

12.2 Persistence and degradability

Product data: No data available.

Substance data: No data available.

12.3 Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

12.4 Mobility in soil

Product data: No data available.

Substance data: No data available.

12.5 Results of PBT and vPvB assessment

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

12.6 Other adverse effects: No data available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods Relevant information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

SECTION 14: Transport information

International Carriage of Dangerous Goods by Road/Rail (ADR/RID)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Carriage of Dangerous Goods by Inland Waterways (ADN)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Bulk Name	None
Ship type	None
Pollution category	None

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SECTION 15: Regulatory information

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

European regulations

Inventory listing (EINECS):

56-81-5	Glycerol	Listed
7732-18-5	Water	Listed

REACH SVHC candidate list: Not determined.

REACH SVHC Authorizations: Not determined.

REACH Restriction: Not determined.

Water hazard class (WGK): Not determined.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Indication of changes:

Not applicable.

Abbreviations and Acronyms: None

Classification procedure:

Classification according to Regulation (EC) No1278/2008 (CLP)	Method Used
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Summary of classification in section 3:

Not classified	
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Summary of hazard statements in section 3:

Not classified	
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Disclaimer:

This product has been classified in accordance with EC 1272/2008 (CLP) and EC 1907/2006 (REACH). The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 1-0-0

HMIS: 1-0-0-B

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End of Safety Data Sheet