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

1.1 Product identifier
Product Name: D-2 Emulsion
Product Description: White liquid
1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified use(s): Water-based screen printing emulsion
1.3 Details of the supplier of the safety data sheet

Manufacturer IKONICS
4832 Grand Ave.
Duluth, MN 55807
United States
www.ikonics.com
sds@ikonics.com
Telephone (General): (218) 628-2217
Telephone (General): (800) 328-4261 - Toll free

1.4 Emergency telephone number
Chemtrec: 1-800-424-9300 - Within USA and Canada
+1 703-527-3887 - Outside USA and Canada (collect calls accepted)

Section 2: Hazards Identification

EU/EEC
According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 [amended by 2020/878]

2.1 Classification of the substance or mixture
CLP

Hazard Class	Category	Code
Not classified		

2.2 Label Elements
CLP

Hazard Statement	Code
Not classified	

Precautionary Measures

Category	Code	Statement
Prevention	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	N/A	
Disposal	P501	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other Hazards
CLP
This mixture does not meet the criteria for persistent, bioaccumulative and toxic or very persistent and very bioaccumulative in accordance with REACH Annex XIII.

Endocrine Disrupting Properties
Human Health: This mixture does not contain components having endocrine disrupting properties in accordance with REACH Article 59(1), Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/603 at a concentration equal to or greater than 0.1% by weight.
Environment: This mixture does not contain components having endocrine disrupting properties in accordance with REACH Article 59(1), Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/603 at a concentration equal to or greater than 0.1% by weight.

UN GHS
According to UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Eighth Revised Edition

2.1 Classification of the substance or mixture
UN GHS

Hazard Class	Category	Code
Not classified		

2.2 Label Elements
UN GHS

Hazard Statement	Code
Not classified	

Precautionary Measures

Category	Code	Statement
Prevention	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	N/A	
Disposal	P501	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards
UN GHS No data available

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture
OSHA HCS 2012

Hazard Class	Category	Code
Not classified		

2.2 Label Elements
OSHA HCS 2012

Hazard Statement	Code
Not classified	

Precautionary Measures

Category	Code	Statement
Prevention	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	N/A	
Disposal	P501	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards
OSHA HCS 2012 No data available

Canada
According to WHMIS 2015

2.1 Classification of the substance or mixture
WHMIS 2015

Hazard Class	Category	Code
Not classified		

2.2 Label Elements

WHMIS 2015

Hazard Statement	Code
Not classified	

Precautionary Measures

Category	Code	Statement
Prevention	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	N/A	
Disposal	P501	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

WHMIS 2015 No data available

2.4 Other information

NFPA

Section 3 - Composition/Information on Ingredients

3.1 Substances

3.2 Mixtures

No ingredients are hazardous according to CLP, GHS, OSHA or WHMIS criteria.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration and call 911 or emergency medical service.

Skin. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Eye. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth. Never give anything by mouth to an unconscious person. If large quantities are swallowed, call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media. SMALL FIRES: Dry chemical, CO2, water spray or regular foam. LARGE FIRE: Water spray, fog or regular foam.

Unsuitable extinguishing media. No data available

Firefighting procedures. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep unauthorized personnel away. Ventilate closed spaces before entering. LARGE FIRES: Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture

Unusual fire and explosion hazards. Material may burn, but does not ignite readily.

Hazardous combustion products. Products of combustion include: carbon oxides (COx).

5.3 Advice for firefighters

Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Emergency procedures. No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.
6.2 Environmental precautions
LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.
6.3 Methods and material for containment and cleaning up
Containment/clean-up measures. Use appropriate Personal Protective Equipment (PPE). Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container.
6.4 Reference to other sections
Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling
Use good safety and industrial hygiene practices.
7.2 Conditions for safe storage, including any incompatibilities
Keep container closed when not in use. Store away from extreme heat. Do not freeze.
7.3 Specific end use(s)
Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters
None specified
8.2 Exposure controls
Engineering measures/controls. Local exhaust is recommended but not required. Provide adequate ventilation as necessary.
Personal Protective Equipment
Pictograms

Respiratory: In case of insufficient ventilation, wear suitable respiratory equipment.
Eye/Face: Wear protective eyewear (goggles, face shield, or safety glasses).
Hands: Wear protective gloves - rubber or neoprene.
Skin/Body: Wear protective clothing - apron or other impervious body coverings.
General industrial hygiene considerations: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.
Environmental exposure controls: No data available

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	**Appearance/Description**	Viscous liquid
Color	White	**Odor**	Mild
General Properties			
Boiling Point	Approximately 100 C (212 F)	**Melting/Freezing Point**	Approximately 0 C (32 F)
Decomposition Temperature	Not relevant	**pH**	No data available
Density	8.7 lbs/gal (1.09 kg/L)	**Water Solubility**	Miscible
Viscosity	5300-7300 Centipoise (cPs, cP) or mPas @ 25 C (77 F)	**Kinematic Viscosity**	5080-7000 mm^2/s
Explosive Properties	Not relevant	**Oxidizing Properties**	Not relevant
Volatility			
Vapor Pressure	Not relevant	**Vapor Density**	Not relevant
Evaporation Rate	No data available	**VOC (Wt.)**	8%
Volatiles (Wt.)	80 %		
Flammability			
Flash Point	No data available	**UEL**	Not relevant
LEL	Not relevant	**Autoignition**	Not relevant
Flammability (solid, gas)	Not relevant		
Environmental			
Half-Life	No data available	**Octanol/Water Partition coefficient**	No data available
Coefficient of water/oil distribution	No data available	**Bioaccumulation Factor**	No data available

Bioconcentration Factor	No data available	**Biochemical Oxygen Demand BOD/BOD5**	No data available
Chemical Oxygen Demand	No data available	**Persistence**	No data available
Degradation	No data available		

9.2 Other Information
No data available

Section 10: Stability and Reactivity

10.1 Reactivity. No dangerous reaction known under conditions of normal use.
10.2 Chemical stability. Stable
10.3 Possibility of hazardous reactions. Hazardous polymerization will not occur.
10.4 Conditions to avoid. Excess heat. Avoid freezing.
10.5 Incompatible materials. Strong oxidizing agents, strong acids, strong bases.
10.6 Hazardous decomposition products. Hazardous decomposition products formed under fire conditions - carbon oxides (COx). No decomposition is expected under normal storage and use conditions.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Hazard	Hazard Classification
Acute toxicity	Based on available data, the classification criteria are not met
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Respiratory/skin sensitization	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-Single Exposure	Based on available data, the classification criteria are not met
STOT-Repeated Exposure	Based on available data, the classification criteria are not met
Aspiration	Based on available data, the classification criteria are not met

Potential Health Effects
Inhalation
Acute (Immediate): May cause irritation.
Chronic (Delayed): Repeated and prolonged exposure may cause irritation.
Skin
Acute (Immediate): May cause mild irritation.
Chronic (Delayed): Repeated and prolonged exposure may cause irritation.
Eye
Acute (Immediate): May cause irritation.
Chronic (Delayed): Repeated and prolonged exposure may cause irritation.
Ingestion
Acute (Immediate): May cause mild irritation.
Chronic (Delayed): No specific information available.

Section 12 - Ecological Information

12.1 Toxicity
No data available
12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
No data available
12.4 Mobility in Soil
No data available
12.5 Results of PBT and vPvB assessment
No data available
12.6 Endocrine disrupting properties
No endocrine disrupting components identified
12.7 Other adverse effects
None noted

Section 13 - Disposal Considerations

13.1 Waste treatment methods
Product waste: Dispose of content in accordance with local, regional, national, and/or international regulations.
Packaging waste: Dispose of container in accordance with local, regional, national, and/or international regulations.

13.2 Other Information
Dispose of wastes in an approved waste disposal facility.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	NDA	NDA	NDA	NDA
IMO/IMDG	NDA	NDA	NDA	NDA	NDA
IATA/ICAO	NDA	NDA	NDA	NDA	NDA

14.6 Special precautions for user. None specified.
14.7 Transport in bulk according to IMO instruments. Not relevant.
14.8 Other information

DOT Not regulated.
IMO/IMDG Not regulated.
IATA/ICAO Not regulated.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
SARA hazard classifications. Not classified
REACH compliance. No components at a concentration of 0.1% w/w or above are included in the Authorization List or the Candidate List of Substances of Very High Concern for Authorization .
US TSCA. All components of this product are listed on the TSCA Inventory.
15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.
15.3 Other information
California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

Section 16 - Other Information

Relevant phrases (code & full text)
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P3021+P352 - IF ON SKIN: Wash with plenty of soap and water.
P304+P3341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
Classification method for mixtures: Calculation method.
Last revision date: 09 October 2024
Preparation date: 13 May 2025
Changes to the current revision: California Proposition 65 information in Section 15.3.
Other information
Approved by: Troy Bergstedt, Director of Chemical Research, (218) 628-2217 ext.142.
Disclaimer/Statement of Liability. The information contained herein is based on data available to us and is believed to be correct. Since this information may have been obtained in part from independent laboratories or other sources not under direct supervision, no representation is made that the information is accurate, reliable, complete, or representative and Buyer may rely thereon only at the Buyer's risk. We make no guarantee that the health and safety precautions we have suggested will be adequate for all individuals and / or situations involving its handling and uses. No warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet.