

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

1.1 Product identifier

- Product Name** • **Diazo sensitizer**
CAS Number • 41432-19-3
Product Description • Yellow-green powder
Molecular Formula • (C13:H11:N3:O4:S)n

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

- Relevant identified use(s)** • Photochemical sensitizer

1.3 Details of the supplier of the safety data sheet

- Manufacturer** • IKONICS Corporation
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 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

- CLP** • Acute Toxicity Oral 4 - H302
Skin Irritation 2 - H315
Skin Sensitization 1 - H317
Eye Irritation 2 - H319
EUH208
- DSD/DPD** • Harmful (Xn)
Irritant (Xi)
R22, R36/37/38, R43

2.2 Label Elements

CLP

WARNING



- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- EUH208 - Contains sensitizing substance (4-Diazodiphenylamine hydrogen sulfate, formaldehyde polymer). May produce an allergic reaction.

Precautionary statements

- Prevention**
- P235+P410 - Keep cool. Protect from sunlight.
 - P260 - Do not breathe dusts or mists.
 - P264 - Wash thoroughly after handling.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.

- Response**
- P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
 - P330 - Rinse mouth.
 - P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 - P304+P340 - IF INHALED: 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.
 - P337+P313 - If eye irritation persists: Get medical advice/attention.
 - P363 - Wash contaminated clothing before reuse.

- Storage/Disposal**
- P403+P235 - Store in a well-ventilated place. Keep cool.
 - P410 - Protect from sunlight.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases**
- R22 - Harmful if swallowed.
 - R36/37/38 - Irritating to eyes, respiratory system and skin.
 - R43 - May cause sensitization by skin contact.

- Safety phrases**
- S3/7 - Keep container tightly closed in a cool place.
 - S22 - Do not breathe dust.
 - S24/25 - Avoid contact with skin and eyes.
 - S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
 - S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 - S64 - If swallowed, rinse mouth with water.(only if the person is conscious).

2.3 Other Hazards

- CLP**
- No data available
- DSD/DPD**
- No data available

UN GHS

According to Third Revised Edition

2.1 Classification of the substance or mixture

- UN GHS**
- Acute Toxicity Oral 4 - H302
 - Skin Irritation 2 - H315
 - Skin Sensitization 1 - H317
 - Eye Irritation 2 - H319

2.2 Label elements

UN GHS

WARNING



- H302 - Harmful if swallowed.
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- Prevention**
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- Storage/Disposal**
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P410 - Protect from sunlight.
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

- Acute Toxicity Oral 4 - H302
Skin Irritation 2 - H315
Skin Sensitization 1 - H317
Eye Irritation 2 - H319

2.2 Label elements

OSHA HCS 2012

WARNING



- H302 - Harmful if swallowed.
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Precautionary statements

- Prevention**
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- Storage/Disposal**
- P403+P235 - Store in a well-ventilated place. Keep cool.
 - P410 - Protect from sunlight.
 - 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

2.1 Classification of the substance or mixture

WHMIS

- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



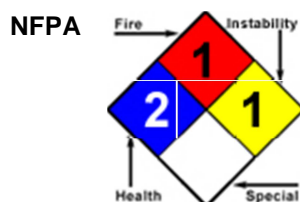
- Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

- No data available.

2.4 Other information



Key to abbreviations

= See Section 16 for full text of R and S phrases.

Section 3 - Composition/Information on Ingredients

3.1 Substances

Hazardous Components					
Chemical Name	Identifiers	% (weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
4-Diazodiphenylamine hydrogen sulfate, formaldehyde polymer	CAS:41432-19-3	100%	NDA	OSHA: Irrit. WHMIS: Other Toxic Effects - D2B UN GHS: Acute Tox. 4; Eye Irrit. 2A; Skin Irrit. 2; Skin Sens. 1; STOT SE 3: Resp. Irrit. EU DSD/DPD: Harmful(Xn); R22; R36/37/38; R43 EU CLP: Acute Tox. 4; Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B; STOT SE 3: Resp. Irrit.	

3.2 Mixtures

Key to abbreviations

= See Section 16 for full text of R and S phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

- Inhalation**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and call 911 or emergency medical service.
- Skin**
- IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.
- Eye**
- IF IN EYES: 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

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- No data available.

Antidotes

- No data available.

4.4 Other information

- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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**
- Firefighters 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.
LARGE FIRES: Move containers from fire area if you can do it without risk.
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Some of these materials may burn, but none ignite readily.
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Some may decompose explosively when heated or involved in a fire.
- Hazardous Combustion Products**
- Substance may decompose when exposed to excessive heat or fire conditions, which may create pressurization in the container and produce corrosive and/or toxic fumes. Products of combustion include: carbon oxides (COx), nitrogen oxides (NOx), sulfur oxides (SOx).

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Ventilate enclosed areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Contact may irritate or burn skin and eyes.
- Emergency Procedures**
- Ventilate closed spaces before entering. 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).
Avoid generating dust.
Carefully shovel or sweep up spilled material and place in suitable container.
Residual material can be removed by wiping or rinsing with water.

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

- Handling**
- Use good safety and industrial hygiene practices. Use only with adequate ventilation. Minimize dust generation and accumulation. Handle and store under yellow lights to prevent exposure to UV radiation.

7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Keep container/package tightly closed in a cool place. Store material in its original packaging to prevent UV exposure.
- Special Packaging Materials**
- Package in opaque containers and/or use additional light-blocking materials.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines • No data available.

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.

Environmental Exposure Controls

- No data available.

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Powder
Color	Yellow-green	Odor	Mild
Odor Threshold	No data available		
General Properties			
Boiling Point	Not relevant	Melting Point	No data available
Decomposition Temperature	No data available	pH	No data available
Density	No data available	Water Solubility	Soluble
Viscosity	Not relevant	Explosive Properties	Not relevant
Oxidizing Properties:	Not relevant		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant	VOC (Wt.)	Not relevant
Volatiles (Wt.)	Not relevant		
Flammability			
Flash Point		UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Combustible solid.		
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

- UV reactive; decomposes at high temperature.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- UV reactive.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Direct sunlight. Excess heat.

10.5 Incompatible materials

- Oxidizers.

10.6 Hazardous decomposition products

- Hazardous decomposition products formed under fire conditions - carbon oxides, nitrogen oxides, sulfur oxides.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP•Acute Toxicity 4 (Ingestion/Oral) UN GHS•Acute Toxicity 4 (Ingestion/Oral)
Skin corrosion/Irritation	EU/CLP•Skin Irritation 2 UN GHS•Skin Irritation 2
Serious eye damage/Irritation	EU/CLP•Eye Irritation 2 UN GHS•Eye Irritation 2A
Skin sensitization	EU/CLP•Skin Sensitizer 1 UN GHS•Skin Sensitizer 1
Respiratory sensitization	EU/CLP• UN GHS•
Aspiration Hazard	EU/CLP• UN GHS•
Carcinogenicity	EU/CLP• UN GHS•
Germ Cell Mutagenicity	EU/CLP• UN GHS•
Toxicity for Reproduction	EU/CLP• UN GHS•
STOT-SE	EU/CLP•Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation UN GHS•Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	EU/CLP• UN GHS•

Potential Health Effects

Inhalation

Acute (Immediate) • May cause irritation.

Chronic (Delayed) • No data available.

Skin

Acute (Immediate) • May cause irritation. May cause an allergic skin reaction.

Chronic (Delayed) • Repeated and prolonged exposure may cause sensitization.

Eye

Acute (Immediate) • Causes serious eye irritation.

Chronic (Delayed) • No data available.

Ingestion

Acute (Immediate) • May be harmful.

Chronic (Delayed) • No data 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 Other adverse effects

Ecological Fate • No data available.

Potential Environmental Effects • No data available.

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
TDG	NDA	NDA	NDA	NDA	NDA

IMO/IMDG	NDA	NDA	NDA	NDA	NDA
ADN	NDA	NDA	NDA	NDA	NDA
ADR/RID	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 Annex II of MARPOL 73/78 and the IBC Code

- This product is provided only in non-bulk containers.

14.8 Other information

- Do not store and transport with oxidizers etc.

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 • Acute

Inventory						
Component	CAS	Australia AICS	Canada NDSL	Japan ENCS	Korea KECL	New Zealand
4-Diazodiphenylamine hydrogen sulfate, formaldehyde polymer	41432-19-3	Yes	Yes	Yes	Yes	Yes
Inventory (Con't.)						
Component	CAS	Philippines PICCS		TSCA		
4-Diazodiphenylamine hydrogen sulfate, formaldehyde polymer	41432-19-3	Yes		Yes		

15.2 Chemical Safety Assessment

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

Section 16 - Other Information

Relevant Phrases (code & full text)

- EUH208 - Contains sensitizing substance. May produce an allergic reaction.
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- P235+P410 - Keep cool. Protect from sunlight.
- P260 - Do not breathe dusts or mists.
- P264 - Wash thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 - IF INHALED: 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.
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P403+P235 - Store in a well-ventilated place. Keep cool.
P410 - Protect from sunlight.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
R22 - Harmful if swallowed.
R36/37/38 - Irritating to eyes, respiratory system and skin.
R43 - May cause sensitization by skin contact.
S3/7 - Keep container tightly closed in a cool place.
S22 - Do not breathe dust.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S64 - If swallowed, rinse mouth with water.(only if the person is conscious).

Last Revision Date

- 23 April 2012

Preparation Date

- 10 November 2014

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.