

SAFETY DATA SHEET

# Initiator 93

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

*Trade name:* Initiator 93  
*Product no.:* MS-093

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

*Relevant identified uses of the substance or mixture:* Catalyst, Initiator  
Restricted to professional users.  
*Uses advised against :* None known.

### 1.3. Details of the supplier of the safety data sheet

*Company and address:* **Hernon Manufacturing Inc**  
121 Tech Drive  
FL 32771 Sanford  
USA  
T: +1-407-322-4000  
www.hernon.com  
*Contact person:* Hernon SDS Coordinator  
*E-mail:* customerservice@hernon.com  
*Revision:* 17/06/2024  
*SDS Version:* 1.0

### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webpoisoncontrol (triage.webpoisoncontrol.org) to get specific guidance for your case.  
VelocityEHS:  
+1-800-255-3924 (USA)  
+1-813-248-0585 (International)  
1-300-954-583 (Australia)  
0-800-591-6042 (Brazil)  
400-120-0751 (China)  
000-800-100-4086 (India)  
800-099-0731 (Mexico)  
Contract #: (MIS0002665)

## SECTION 2: HAZARDS IDENTIFICATION

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

### 2.1. Classification of the substance or mixture

Org. Perox. C; H242, Heating may cause a fire.

Acute Tox. 4; H302, Harmful if swallowed.

## 2.2. Label elements

Hazard pictogram(s):



Signal word:

Danger

Hazard statement(s):

Heating may cause a fire. (H242)  
Harmful if swallowed. (H302)

Precautionary statement(s):

General:

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Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)  
Keep only in original packaging. (P234)  
Wash hands and exposed skin thoroughly after handling. (P264)

Response:

In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)

Storage:

Store in a well-ventilated place. Keep cool. (P403+P235)

Disposal:

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances:

2,2'-Azobis(isobutyronitrile)  
Water

Additional labelling:

Not applicable.

## 2.3. Other hazards

Additional warnings:

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
2,2'-Azobis(isobutyronitrile)	CAS No.: 13472-08-7 EC No.: 236-740-8 UK-REACH: Index No.:	50%	Self-react. D, H242 Acute Tox. 4, H302	
Water	CAS No.: 7732-18-5 EC No.: 231-791-2	50%		

	UK-REACH: Index No.:			
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See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

## Other information

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## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

*General information:*

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

*Inhalation:*

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

*Skin contact:*

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

*Eye contact:*

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

*Ingestion:*

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Rinse mouth.

*Burns:*

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

None known.

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

Treat symptomatically.

### Information to medics

Bring this safety data sheet or the label from this product.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

### 5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-

extinguishing water to enter the sewage system and nearby surface waters.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.  
Keep unauthorized persons away from the spill

### 6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Ground and bond container and receiving equipment.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

### 7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

*Recommended storage material:* Always store in containers of the same material as the original container.

*Storage conditions:* Refrigerator, 2 to 8°C

*Incompatible materials:* Acids  
Peroxides  
Strong oxidizing agents

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

## DNEL

2,2'-Azobis(isobutyronitrile)

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	467 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	990 µg/m³

## PNEC

2,2'-Azobis(isobutyronitrile)

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		830 µg/L
Freshwater sediment		13.4 mg/kg
Intermittent release (freshwater)		519 µg/L
Marine water		83 µg/L
Marine water sediment		1.34 mg/kg
Sewage treatment plant		117 mg/L
Soil		2.18 mg/kg

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

*General recommendations:*

Smoking, drinking and consumption of food is not allowed in the work area.

*Exposure scenarios:*

There are no exposure scenarios implemented for this product.

*Exposure limits:*

Occupational exposure limits have not been defined for the substances in this product.

*Appropriate technical measures:*

Ground and bond container and receiving equipment. Apply standard precautions during use of the product. Avoid inhalation of vapours.

*Hygiene measures:*

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

*Measures to avoid environmental exposure:*

No specific requirements.

## Individual protection measures, such as personal protective equipment

*Generally:*

Use only UKCA marked protective equipment.


*Respiratory Equipment:*

No specific requirements


*Skin protection:*

No specific requirements.

*Hand protection:*

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile Rubber				

Eye protection:

Type	Standards	
Face shield alternatively safety glasses with side shields.	EN166	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<i>Physical state:</i>	Paste
<i>Colour:</i>	White
<i>Odour / Odour threshold:</i>	None
<i>pH:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Density (g/cm³):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Kinematic viscosity:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Particle characteristics:</i>	Testing not relevant or not possible due to the nature of the product.

### Phase changes

<i>Melting point/Freezing point (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Softening point/range (°C):</i>	No data available.
<i>Boiling point (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Vapour pressure:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Relative vapour density:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Decomposition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.

### Data on fire and explosion hazards

<i>Flash point (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Flammability (°C):</i>	The material is ignitable.
<i>Auto-ignition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.

*Lower and upper explosion limit (% v/v):*

Testing not relevant or not possible due to the nature of the product.

## Solubility

*Solubility in water:*

Slightly soluble

*n-octanol/water coefficient (LogKow):*

Testing not relevant or not possible due to the nature of the product.

*Solubility in fat (g/L):*

Testing not relevant or not possible due to the nature of the product.

## 9.2. Other information

*Thermal stability:*

Decomposes at high temperatures

*Self-accelerating decomposition temperature (SADT) (°C):*

55°C- 65°C

*Other physical and chemical parameters:*

No data available.

*Oxidizing properties:*

Testing not relevant or not possible due to the nature of the product.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Extremes of temperature

Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources.

Sunlight

Incompatible Materials

### 10.5. Incompatible materials

Acids

Peroxides

Strong oxidizing agents

### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

#### Acute toxicity

Harmful if swallowed.

#### 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 sensitisation**

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

#### **Skin sensitisation**

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 hazard**

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

### **11.2. Information on other hazards**

#### **Long term effects**

None known.

#### **Endocrine disrupting properties**

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

#### **Other information**

None known.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1. Toxicity**

No data available.

### **12.2. Persistence and degradability**

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

### **12.3. Bioaccumulative potential**

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

### **12.4. Mobility in soil**

No data available.

### **12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### **12.6. Endocrine disrupting properties**

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.



## 12.7. Other adverse effects

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

HP 6 - Acute toxicity

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.




EWC code:

Not applicable.

### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN3224	SELF-REACTIVE SOLID TYPE C (2,2'-Azobis(isobutyronitrile))	Transport hazard class: 4.1 Label: 4.1 Classification code: SR1 	-	No	Limited quantities: 100 g Tunnel restriction code: (D) See below for additional information.
IMDG	UN3224	SELF-REACTIVE SOLID TYPE C (2,2'-Azobis(isobutyronitrile))	Transport hazard class: 4.1 Label: 4.1 Classification code: SR1 	-	No	Limited quantities: 100 g EmS: F-J S-G See below for additional information.
IATA	UN3224	SELF-REACTIVE SOLID TYPE C (2,2'-Azobis(isobutyronitrile))	Transport hazard class: 4.1 Label: 4.1 Classification code: SR1 	-	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

## Additional information

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Maritime transport in bulk according to IMO instruments

No data available.

## SECTION 15: REGULATORY INFORMATION

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

*Restrictions for application:*

Restricted to professional users.

*Demands for specific education:*

No specific requirements.

*SEVESO - Categories / dangerous substances:*

P6b - SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES, Qualifying quantity (lower-tier): 50 tonnes / (upper-tier): 200 tonnes

*Additional information:*

Not applicable.

*Sources:*

Control of Major Accident Hazards (COMAH) Regulations 2015.  
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.  
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.  
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

### 15.2. Chemical safety assessment

No

## SECTION 16: OTHER INFORMATION

### Full text of H-phrases as mentioned in section 3

H242, Heating may cause a fire.

H302, Harmful if swallowed.

### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CE = Conformité Européenne (European conformity)  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EINECS = European Inventory of Existing Commercial chemical Substances  
ES = Exposure Scenario  
EUH statement = CLP-specific Hazard statement  
EuPCS = European Product Categorisation System  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
GWP = Global warming potential  
IARC = International Agency for Research on Cancer (IARC)  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SCL = A specific concentration limit  
SVHC = Substances of Very High Concern  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

### **Additional information**

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the mixture in regard to physical hazards has been based on experimental data.

### **The safety data sheet is validated by**

SDS Coordinator

### **Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en