

## N2 GLOBAL Nitrogen gas generator

Date of issue: 2020.08.11.

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

- 1.1 Product identifier**  
Trade name: N2 GLOBAL Nitrogen gas generator
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
For industrial use only.  
Article with integrated chemical mixture (device).  
The product is fire extinguishing device releasing nitrogen when activated. The generator is electrically initiated if actual temperature inside in the generator exceeds  $\geq 275^{\circ}\text{C}$ . Products of decomposition stays inside generator. Nitrogen gas is released.
- 1.3. Details of the supplier of the safety data sheet**  
Company name: SIA "N2 GLOBAL"  
Registration number: 40103962558  
Address: Dzirnavu iela 68 k-2, Rīga, LV-1050, Latvia.  
Phone: +371 29224422  
E-mail of the person responsible for SDS: valdis.libans@n2global.net
- 1.4. Emergency telephone number**  
EU: 112  
Emergency telephone for other regions to be filled out by local business.

### SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**  
Product has been classified as article containing integrated chemical mixture not intended for release. The chemical mixture is an integral part of an article (device). The assessment on fulfilment the definition of an article under REACH regulation (1907/2006), Article 3(3) has been done. This article (device) contains chemical components and initiator that are hermetically sealed off from the environment. These cannot be released under normal or reasonably foreseeable conditions of use. When activated in fire (in extreme conditions), the fire extinguishing device releasing nitrogen which is decomposition product of the chemical content. Although safety data sheet for the article is not required acc. to Article 33 of REACH regulation (1907/2006), N2 GLOBAL consider be useful to supply information down to the supply chain for downstream users with safety data sheet.
- 2.2. Label elements**  
Not required.
- 2.3. Other hazards**  
Product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

### SECTION 3: Composition/information on ingredients

- 3.1. Substances**  
Not applicable.
- 3.2. Mixtures**  
The product and it's chemical mixture inside do not contain as intentionally added raw materials any of the substances of very high concern (SVHC) above a limit of 0.1 % w/w according to the candidate list, article 59 (1, 10) European REACH regulation (EC) No. 1907/2006. To the best of our knowledge, none of these materials are generated during production and reasonably foreseeable conditions of use. There are no additional ingredients present which, within our current knowledge are PBTs, vPvBs or substances of equivalent concern (endocrine disruptors) and hence could require reporting in this section.

### SECTION 4: First aid measures

- 4.1. Description of first aid measures**  
**GENERAL INFORMATION**  
When in doubt or if symptoms are observed, get medical advice.
- INHALATION:**  
This type of exposure is unlikely. If in fire: see section 5.
- SKIN CONTACT:**  
This type of exposure is unlikely.

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### EYE CONTACT:

This type of exposure is unlikely.

### INGESTION:

This type of exposure is unlikely.

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

No known significant effects or critical hazards.

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

Treat symptomatically.

When contacting a physician, take this SDS with you.

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

The product is fire extinguishing device itself releasing nitrogen when activated.

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

Nitrogen gas is released when device is discharged.

#### 5.3. Advice for fire-fighters

No action shall be taken involving any personal risk or without suitable training. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

This article (device) contains chemical components and initiator that are hermetically sealed off from the environment. Based on our research, the content can not be released in accidental incident, for example after a fall. In case of breaking or opening of a generator, evacuate people from the contaminated area and put on appropriate personal protective equipment, incl. respirator intended for protection of powdered chemical substances.

There is a risk of accidental release due to electrical fault: short circuit or static electricity – due to that it may energize initiator and consequently start nitrogen releasing process.

#### 6.2. Environmental precautions

In case of breaking or opening of a generator prevent leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Application of water shall be avoided during cleaning up.

#### 6.4. Reference to other sections

For more information please check section 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### 7.1.1 Advice on safe handling

The generator is hermetically sealed off from the environment. The content cannot be released under normal conditions during packaging, transportation, storage and installation. Installation must be carried out according to the manufacturer's instructions - see operating instructions.

The generator is electrically initiated if actual temperature inside in the generator exceeds  $\geq 275^{\circ}\text{C}$ . Avoid extremely high temperatures and open flames when handling the device.

The chemical agents within the generator can not be released under normal or reasonably foreseeable conditions of use. Do not open, drill, incinerate, crush, immerse, or expose to temperatures above the operating temperature range reported for products.

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### 7.1.2 Information on general occupational hygiene

General occupational hygiene measures are required to ensure safe handling of the device. These measures involve good personal and housekeeping, no drinking, eating and smoking at the workplace.

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

Store in original package. Store in temperature between: 5°C and 40°C. Keep dry. Keep away from excessive moisture, extreme heat, direct sunlight away from food and drink. Do not store together with combustible or oxidizing substances or mixtures. Store in accordance with local regulations.

### 7.3. Specific end use(s)

No additional information for specific end uses.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

No applicable.

### 8.2. Exposure controls

#### 8.2.1 Appropriate engineering controls

Packaging, transport, storage and installation of the finished product do not involve any specific chemical risks.

#### 8.2.2 Individual protection measures such as personal protection equipment

Occupational safety measures for packaging, transport, storage and installation of the finished product must be established through a risk assessment of the working environment.

#### **General:**

Do not eat, drink or smoke when working with product.

#### **Eye /face protection**



Wear eye / face protection if workplace risk assessment indicates risks. No special chemical protection is required when handling the finished product.

#### **Skin protection**



Wear gloves to protect your hands from mechanical damage during packing or handling. No special chemical protection is required when handling the finished product.

#### **Respiratory and body protection**



Wear protection if workplace risk assessment indicates risks. No special chemical protection is required when handling the finished product.

#### **Thermal hazards**

The device itself does not present any thermal risks.

#### 8.2.3 Environmental exposure controls

The device itself does not present any environmental risks.

## SECTION 9: Physical and chemical properties

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

- (a) *Appearance:* Metal casing containing a solid, porous block inside.
- (b) *Odour:* Not available, since substance is closed in generator.
- (c) *Odour threshold:* Not applicable.
- (d) *pH:* Not applicable.
- (e) *Melting point:* Not available.

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- (f) *Initial boiling point and boiling range*: Not applicable.
- (g) *Flash point*: Not applicable as the substance is not a liquid.
- (h) *Evaporation rate*: Not applicable.
- (i) *Flammability (solid, gas)*: Not applicable.
- (j) *Upper/lower flammability or explosive limits*: Not applicable as it is not a flammable gas.
- (k) *Vapour pressure*: Not applicable.
- (l) *Vapour density*: Not applicable.
- (m) *Relative density*: Not applicable.
- (n) *Solubility in water*: Not available.
- (o) *Solubility in other solvents*: Not available.
- (p) *Partition coefficient: n-octanol/water*: Not available.
- (q) *Auto-ignition temperature*: Not available.
- (r) *Self-ignition temperature*: Decomposition (self initiation) starts if actual temperature inside in the generator exceeds  $\geq 275^{\circ}\text{C}$ .
- (s) *Viscosity*: Not applicable.
- (t) *Explosive properties*: Non-explosive.
- (u) *Oxidising properties*: Not oxidising.

### 9.2. Other information

Not available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under recommended storage conditions.

### 10.2. Chemical stability

The product is stable at appropriate storage and handling.

### 10.3. Possibility of hazardous reactions

In fire may self-initiate and release nitrogen and reduce oxygen content in air.

### 10.4. Conditions to avoid

High temperature.  
Short circuit, static electricity.

### 10.5. Incompatible materials

No known.

### 10.6. Hazardous decomposition products

The product is fire extinguishing device releasing nitrogen when activated.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<b>Acute toxicity - dermal</b>	-	Based on available data, the classification criteria are not met.
<b>Acute toxicity- inhalation</b>	-	Based on available data, the classification criteria are not met.
<b>Acute toxicity - oral</b>	-	Based on available data, the classification criteria are not met.
<b>Skin corrosion/ irritation</b>	-	Based on available data, the classification criteria are not met.
<b>Serious eye damage/irritation</b>	-	Based on available data, the classification criteria are not met.
<b>Skin sensitisation</b>	-	Based on available data, the classification criteria are not met.
<b>Respiratory sensitisation</b>	-	Based on available data, the classification criteria are not met.
<b>Repeated dose toxicity</b>	-	Based on available data, the classification criteria are not met.
<b>Germ cell mutagenicity</b>	-	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	-	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity;</b>	-	Based on available data, the classification criteria are not met.

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<b>STOT-single exposure</b>	-	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	-	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	-	Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- 12.1. Toxicity**  
No known significant effects or critical hazards
- 12.2. Persistence and degradability**  
No known significant effects or critical hazards.
- 12.3. Bioaccumulative potential**  
No known significant effects or critical hazards.
- 12.4. Mobility in soil**  
No known significant effects or critical hazards.
- 12.5. Results of PBT and vPvB assessment**  
Product is not considered as PBT or vPvB.
- 12.6. Other adverse effects**  
Not relevant.

### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods**  
**Advice on disposal:**  
Generators that have to be recycled but have not been in operation (not discharged), shall be considered as hazardous waste. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.
- European waste catalogue (EWC):**  
Discharged **device:**  
16 02 14 discarded equipment other than those mentioned in 16 02 09 to 16 02 13.

### SECTION 14: Transport information

This product is classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

- 14.1. UN number**  
UN3268  
  
Used product: UN No. 3363, dangerous goods in machinery or dangerous goods in apparatus is not subject to ADR.
- 14.2. UN proper shipping name**  
SAFETY DEVICES, electrically initiated  
  
Used product: UN No. 3363, dangerous goods in machinery or dangerous goods in apparatus is not subject to ADR.
- 14.3. Transport hazard class (-es)**



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- 14.4. Packing group**  
Not relevant.
- 14.5. Environmental hazards**  
Yes
- 14.6. Special precautions for user**  
Unused product:  
Special provisions:  
280  
289  
  
Unused product:  
Limited and excepted quantities:  
0/E0
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**  
Not relevant.

### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Europe:**  
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures.  
ADR - the European Agreement concerning the International Carriage of Dangerous Goods by Road, concluded at Geneva on 30 September 1957, as amended.  
RID - the Regulations concerning the International Carriage of Dangerous Goods by Rail, appearing as Appendix C to the Convention concerning International Carriage by Rail (COTIF) concluded at Vilnius on 3 June 1999, as amended.  
ADN - the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways concluded at Geneva on 26 May 2000, as amended.  
IMDG Code - International Maritime Dangerous Goods Code.  
IATA/ICAO: ICAO - International Civil Aviation Organization. IATA - International Air Transport Association.  
MARPOL 73/78 - International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.  
REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH):  
Annex XIV - List of substances      Substances of very high concern: None of the components are listed.  
subject to authorization:  
Annex XVII - Restrictions              Not applicable.  
on the manufacture,  
placing on the market and use  
of certain dangerous  
substances, mixtures and  
articles:
- 15.2. Chemical Safety Assessment**  
Not applicable.

### SECTION 16: Other information

- 16.1 Indication of changes**  
Version 3 – October 2019
- 16.2 Abbreviations and acronyms**  
ADR/RID      European Agreements on the transport of Dangerous goods by Road/Railway  
CAS            Chemical Abstracts Service  
CLP            Classification, labelling and packaging (Regulation (EC) No 1272/2008)  
ECHA          European Chemicals Agency  
EINECS        European Inventory of Existing Commercial chemical Substances  
IATA           International Air Transport Association  
IMDG          International agreement on the Maritime transport of Dangerous Goods

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MS	Member State
PBT	Persistent, bio-accumulative and toxic
REACH	Registration, Evaluation and Authorisation of Chemicals
SDS	Safety Data Sheet
STOT	Specific target organ toxicity
vPvB	Very persistent, very bio-accumulative

**16.3 Key literature references and sources of data**

- ECHA Database.
- MSDS for substances which contains this product.

**16.4 Full text of Hazard Statement**

Not applicable.

**16.5 Training advice**

In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS.

**16.7 Disclaimer**

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or method of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS/SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS/SDS information may not be applicable.

**End of the Safety Data Sheet**