

Material Safety Data Sheet

Version 2.4 MSDS:
Revision Date 1/22/2014

N₂O Gas Cartridges
Print Date 1/25/14

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name Cryoalfa 8g, 12g, 16g, 24g Gas Cartridge
Product number CA-K-Vxx, CA-K-Gxx
CAS-No: 10024-97-2
Distributor: SKAFTE Medlab AB
Apelrödsvägen 1
439 32 Onsala
Sweden
Telephone +46 300-56 94 94

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

Identified uses Professional - dermatology, medical Doctors, podiatrist,

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

Labeling according Regulation (EC) No 1272/2008 [CLP]

Pictogram

None

Signal word

None

Hazard statement(s)

None

Precautionary statement(s)

P102 Keep out of reach of children
P260 Do not breathe gas
P262 Do not get in eyes, on skin, or on clothing
P410 + P412 Protect from sunlight.
Do not expose to temperatures exceeding 50°C/122 °F
Supplemental Hazard None

Statements

Use for Cryoalfa device only. Do always read user's guide carefully before using!

2.3 Other hazards

None

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EG nr	Chemical name	Volume/contet
CAS nr	Classification	
Index nr	GHS-classification	
233-032-0	Nitrous oxide (N ₂ O)	80-100%
10024-97-2	O; R8 (see section 16)	
- - -	Ox.Gas 1 (H270), Lig.Gas (H280) (see section 16)	

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4 FIRST AID MEASURES

4.1 Description of first aid measure

General advice

Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

If inhaled

If breathed in, move the person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). In case of massive exposure, remove contaminated clothing while showering with warm water. Call a physician.

In case of eye contact

For exposure to liquid, immediately flush eyes thoroughly with warm water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. See a physician, preferably an ophthalmologist, immediately.

If swallowed

An unlikely route of exposure. This product is a gas at normal temperature and pressure.

4.2 Most important symptoms and effects, both acute and delayed

If inhaled

High concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of coordination.

In case of skin contact

No harm expected from gas. Liquid can cause frostbite.

In case of eye contact

No harm expected from gas. Liquid can cause frostbite.

If swallowed

An unlikely route of exposure. This product is a gas at normal temperature and pressure, but frostbite of the lips and mouth may occur on contact with the liquid.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire fighting

5.4 Further information

Use water spray to cool unopened container.

6 ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Do not breathe gas / fumes / vapor / spray. contact with skin and eyes. Instructions for use are observed.

Ensure good ventilation, avoid breathing gas / fumes / vapor / spray. Avoid contact with skin and eyes.

Instructions for use are observed. Ensure good ventilation

Information about fire and explosion protection

Keep away from sources of ignition - No smoking. Normal measures for preventive fire protection.

Further information

No special measures are necessary. Should only be used with Cryoalfa unit.

Read instructions before use.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Store containers in location free from fire risk and away from sources of heat and ignition.

Contents under pressure. Do not allow storage temperature to exceed 50°C (122°F). Stored containers

should be periodically checked for general condition and leakage. Observe all regulations and local

requirements regarding storage of containers. Protect containers stored in the open against rusting and

extremes of weather. Containers should not be stored in conditions likely to encourage corrosion.

7.3 Specific end uses

Follow instructions on the label

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Nitrous oxide	Time Weighted (TWA): ACGIH	50 ppm	- -
Nitrous oxide	Recommended exposure limit (REL): NIOSH	25 ppm	46 mg/m ³

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

In case of direct contact with the substance or splashes visor or goggles to protect against chemicals used (EN 166). In case of insufficient ventilation required respirator.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Control of environmental exposure

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9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Liquefied gas
b) Odor	no data available
c) Odor Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	Melting point/range: -91°C.
f) Initial boiling point and boiling range	-88.5°C
g) Flash point	not applicable
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability/explosive limits	no data available
k) Vapor pressure	5 Mpa (50 bar) at 20 °C
l) Vapor density	1,5 - (Air = 1.0)
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	The substance or mixture is classified as oxidizing with the category 1.
u) Critical temperature	36.4°C (98°F)

9.2 Other safety information

No data available

10 STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reaction

No data available

10.4 Condition to avoid

No data available

10.5 Incompatible materials

Aluminum, Borane/boron oxides, Hydrazine, Strong reducing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

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Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Dinitrogen oxide)

Reproductive toxicity

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

anesthetic effects

Additional Information

RTECS: QX1350000

12 ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bio accumulative 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 effect

no data available

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods**Product**

Inform waste disposal contractor of material to be disposed of zinc-plated and chrome stabilised steel.

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Never dispose of a filled cylinder..

Contaminated packaging

Dispose of as unused product.

14 TRANSPORTINFORMATION

Road transport (ADR/RID)

14.1 UN number

2037

14.2 UN proper shipping name

RECEPTACLES; SMALL; WITH GAS (GAS CARTRIDGES)
without a release device, non refillable.

14.3 Transport hazard class(es)

2.2 (5.1)

14.4 Packaging group

no

14.5 Environmental hazards

no

14.6 Special precautions for user

no data available

Remarks

According to ADR 2009 chapter 3.2 schedule A column 6 special provisions 191 and 303 are valid
(transported product is not subject to the requirements of ADR).

Sea transport (IMDG)

14.1 UN number

2037

14.2 UN proper shipping name

RECEPTACLES; SMALL; WITH GAS (GAS CARTRIDGES)
without a release device, non refillable.

14.3 Transport hazard class(es)

2.2 (5.1)

EmS-Code: F-D, S-U

14.4 Packaging group

IMDG: no

14.5 Environmental hazards

no

14.6 Special precautions for user

no data available

Remarks

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Air transport (IATA)

14.1 UN number

2037

14.2 UN proper shipping name

RECEPTACLES; SMALL; WITH GAS (GAS CARTRIDGES)
without a release device, non refillable.

14.3 Transport hazard class(es)

2.2 (5.1)

14.4 Packaging group

no

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14.5 Environmental hazards

no

14.6 Special precautions for user

no data available

Remarks

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15 REGULATION INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

15.2 Chemical Safety Assessment

no data available

16 OTHER INFORMATION

H-Statements used in Section 3

H270 - May cause or intensify fire; oxidiser

H280 – Contains gas under pressure; may explode if heated

R-Phrases used in Section 3

R8 - Contact with combustible material may cause fire

Legend

TWA – Time Weighted Average

PBT – Persistent, Bioaccumulative and Toxic

vPvB – very Persistent and very Bioaccumulative

Product for professional use only

For more information regarding the use of this product please refer to the technical information.

Update

This sheet was updated (refer to the date at the top of the first page) This Safety Data Sheet was updated in accordance with Directive 1999/45/EC and 1272/2010/EC, the regulation 453/2010/EU (amendment on Annex II of 1907/2006/EC) and their adaptations.

The following sections contain revisions or new statements: 14.

Further information

All information and instructions provided in this Material Safety Data Sheet is based on the current state of scientific and technical knowledge at the date indicated on the present MSDS, but does not constitute a guarantee of the properties of the product and is not a contractual legal report.

The safety data sheet has been written in conformity with the article 31 and the Annex II of the UE REACH regulation, and the amendments concerning the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances and mixtures. It is the responsibility of persons in receipt of this MSDS to ensure that all people who may use, handle, dispose or in any way come in contact with the product understands this information.