



SAFETY DATA SHEET

Ikaros Handflare, Red



The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 22.11.2016

1.1. Product identifier

Product name Ikaros Handflare, Red
Chemical name 2 g ignition composition, 74 g red illuminating composition
Article no. 341500 (order number 341500, 341570)

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

Use of the substance/preparation Pyrotechnic distress flare.

1.3. Details of the supplier of the safety data sheet

Company name Nammo Sweden AB
Postal address PO Box 54
Postcode SE-711 22
City Lindesberg
Country Sweden
Tel 0581-871 00
Fax 0581-872 00
E-mail info.ikaros@nammo.com
Website <http://www.hansson-pyrotech.se/>
Enterprise no. 556249-6835

1.4. Emergency telephone number

Emergency telephone Emergency call:+46 581 87 111 (Available 24 hours)

Identification comments Ask for officer on duty at Nammo LIAB AB.

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to Expl. 1.4; H204
Regulation (EC) No 1272/2008 Acute tox. 4; H302
[CLP/GHS] Eye Irrit. 2; H319
Substance / mixture hazardous properties Main health hazard: Pyrotechnic product. Inhalation: May be mildly irritating to the respiratory system. Contact with skin: May be mildly irritating to the skin. Contact with burning product can cause severe burns. Contact with eyes: Causes serious eye irritation. Ingestion: Harmful if swallowed. Fire and explosion hazard: Risk of explosion if the product is exposed to electric shock, friction, fire or other sources of ignition. Environmental hazard: Not classified as dangerous to the environment.

2.2. Label elements

Hazard Pictograms (CLP)



Composition on the label	Strontium nitrate:= 40,92
Signal word	Warning
Hazard statements	H204 Fire or projection hazard. H302 Harmful if swallowed. H319 Causes serious eye irritation.
Precautionary statements	P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P501 Dispose of contents / container to
Special supplemental label info mixtures	Contains: Strontium nitrate .

2.3. Other hazards

Description of hazard	Contact with burning product can cause severe burns.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Strontium nitrate	CAS no.: 10042-76-9 EC no.: 233-131-9 Registration number: 01-2120007501-75	Ox. Sol. 3; H272 Acute tox. 4; H302 Eye Irrit. 2; H319	= 40,92
Potassium nitrate	CAS no.: 7757-79-1 EC no.: 231-818-8 Registration number: 01-2119488224-35	Ox. Sol. 3; H272 Aquatic Acute 1; H400	= 1,97 %

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Contaminated work clothing should be washed before using again. Special treatment is urgent (see label on this label).
Inhalation	Move the person to fresh air and keep at rest in a position comfortable for breathing. Consult a doctor if symptoms persist.
Skin contact	If burned, rinse with plenty of water for at least 20 minutes. In case of any other contact with skin, wash with soap and water for several minutes.
Eye contact	Hold eyelids open and rinse with soft, lukewarm water or eye wash liquid for at least five minutes. Remove contact lenses. Consult a doctor if symptoms persist.
Ingestion	Get medical advice/attention.

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

Acute symptoms and effects	Contact with burning product can cause severe burns. May cause nausea and vomiting. Harmful if swallowed. Causes serious eye irritation. May be mildly irritating to the skin and respiratory system.
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4.3. Indication of any immediate medical attention and special treatment needed

Medical treatment	None other than the one listed above.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use foam, dry chemical, CO2 or mist early in the fire. Once the product is lit up, it is very difficult to extinguish.
Improper extinguishing media	No restrictions.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	The product is an explosion hazard, as it generates large quantities of gas and heat, once lit.
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5.3. Advice for firefighters

Personal protective equipment	Wear full protective clothing for chemical fires, including breathing apparatus. If possible, remove undamaged containers from the danger area. Remove all ignition sources.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Ensure good ventilation. Use appropriate protective equipment, see section 8. Avoid skin and eye contact. Remove all ignition sources.
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6.2. Environmental precautions

Environmental precautionary measures	Prevent discharge into sewers or the local environment/streams. Contact emergency services upon greater emissions.
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6.3. Methods and material for containment and cleaning up

Cleaning method	Collect with tools that do not give rise to ignition. The waste is placed in closed containers and disposed of as hazardous waste in accordance with section 13.
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6.4. Reference to other sections

Other instructions	See sections 8 and 13 for information about protection and waste management.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Avoid sparks, shock and friction. Use personal protective equipment, see section 8. Avoid skin and eye contact. Protect the product from sources of ignition.
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7.2. Conditions for safe storage, including any incompatibilities

Storage	Store cool and dry in a well-ventilated place. Keep away from sources of ignition - no smoking. Keep out of reach of children.
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7.3. Specific end use(s)

Specific use(s)	Pyrotechnic distress flare.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Other Information about threshold limit values	No exposure limits.
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DNEL / PNEC

Control parameters comments	PNEC/DNEL are not available.
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8.2. Exposure controls

Precautionary measures to prevent exposure

Appropriate engineering controls	Keep away from fire, sparks and other ignition sources. When cleaning, use equipment that does not cause sparks.
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Respiratory protection

Respiratory protection	Upon dust formation, use a particle filter EN143 Type P or EN149 type FFP-S.
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Recommended type of equipment	Particle filter EN143 Type P or EN149 type FFP-S.
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Hand protection

Hand protection	Leather gloves or the like.
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Eye / face protection

Eye protection Shatterproof goggles or visors.

Skin protection

Skin protection (except hands) Normal industrial hygiene.

Hygiene / Environmental

Personal protection equipment, comments Contact your protective equipment supplier for more information.

Specific hygiene measures No smoking.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Black metal tube with red plastic handle, black plastic top lid and orange label.

Colour See under "Physical state".

Odour None.

Comments, pH (as supplied) No information available.

Comments, pH (aqueous solution) No information available.

Comments, Melting point / melting range No information available.

Comments, Boiling point / boiling range No information available.

Comments, Flash point No information available.

Comments, Evaporation rate No information available.

Flammability (solid, gas) The contents are flammable.

Comments, Explosion limit No information available.

Comments, Vapour pressure No information available.

Comments, Vapour density No information available.

Comments, Specific gravity No information available.

Solubility in water Insoluble.

Spontaneous combustibility **Value:** > 250 °C
Method of testing: Ignition temperature

Comments, Viscosity No information available.

Explosive properties The product is explosive.

Oxidising properties Content is oxidizing.

9.2. Other information

Other physical and chemical properties

Comments These are typical values and do not constitute an exact product specification.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable product under recommended storage and handling conditions.

10.2. Chemical stability

Stability Stable product under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Stable product under recommended storage and handling conditions.

10.4. Conditions to avoid

Conditions to avoid Avoids temperatures above 75°C.

10.5. Incompatible materials

Materials to avoid Not applicable.

10.6. Hazardous decomposition products

Hazardous decomposition products The product is explosive, generating large quantities of gas and heat once

ignited. Also emits large quantities of orange smoke.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data No data available for the product itself. The data below is based on individual ingredients of the product.

Toxicological data for substances

Substance Strontium nitrate

LD50 oral **Value:** = 1892 mg/kg

Animal test species: Rat

Comments: Hazardous if ingested.

Other toxicological information for the substance For strontium compounds the health hazards are mainly related to the anion, here nitrate. Nitrates may be hazardous, if swallowed in large amounts, or in low doses for a long period.

Substance Potassium nitrate

LD50 oral **Value:** = 3750 mg/kg

Animal test species: Rat

Other toxicological information for the substance Nitrates may be hazardous, if swallowed in large amounts, or in low doses over a longer period.

Other information regarding health hazards

General Hazardous ingredients: strontium nitrate . Calculated ATE: 1221 mg/kg (classified as harmful)

Potential acute effects

Inhalation May be mildly irritating to the respiratory system.

Skin contact May be mildly irritating to the skin.

Eye contact Causes serious eye irritation.

Ingestion Harmful if swallowed. May cause irritation of the gastrointestinal tract with nausea and vomiting as a result.

Aspiration hazard No aspiration hazard known.

Delayed effects / repeated exposure

Inhalation May be mildly irritating to the respiratory system.

Skin contact May be mildly irritating to the skin.

Eye contact Causes serious eye irritation.

Ingestion May cause nausea and vomiting.

General respiratory or skin sensitisation No known sensitizing effect.

STOT-repeated exposure Not known.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity No known carcinogenicity.

Germ Cell Mutagenicity, human experience No known mutagenicity.

Reproductive toxicity No known reproductive toxicity.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Producted has not been tested. The data below is based on individual ingredients of the product.

Toxicological data for substances

Substance Strontium nitrate

Bioaccumulation Log Pow: 0,19. No bioaccumulation expected.

Substance Potassium nitrate

Acute aquatic, algae	Value: = 0,14 mg/l Method of testing: IC50 Duration: 72h Remarks: Very toxic to aquatic organisms.
Bioaccumulation	LogPow: < 0. No bioaccumulation expected.

12.2. Persistence and degradability

Persistence and degradability	Not applicable. Contains inorganic materials and is in solid form.
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12.3. Bioaccumulative potential

Bioaccumulative potential	Not expected to bioaccumulate.
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12.4. Mobility in soil

Mobility	None – product in form of solid article.
Comments, Water solubility	Insoluble.

12.5. Results of PBT and vPvB assessment

PBT assessment results	Does not fulfil the criteria for classification as PBT.
vPvB evaluation results	Does not fulfil the criteria for classification pub.

12.6. Other adverse effects

Environmental details, summation	Not classified as toxic to water (the IMDG-code).
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Waste should be collected in a separate container. NO SMOKING!
Relevant waste regulation	Waste regulation, SFS 2011:927.
Hazardous waste product	Unused product is hazardous waste and must be disposed of in accordance with national and local regulations. Contact approved waste disposal service to dispose of this material.
Hazardous waste packing	Used product treated as ordinary plastic / metallic waste. DO NOT TRY TO DISASSEMBLE UNUSED PRODUCT! Contaminated packaging may pose a fire hazard.
Product classified as hazardous waste	Yes
Packaging classified as hazardous waste	Yes
EWC waste code	EWC: 160402 fireworks wastes
Other Information	Contaminated packing may burn rapidly.

SECTION 14: Transport information

14.1. UN number

ADR / RID / ADN	0191
RID	0191
IMDG	0191
ICAO/IATA	0191
Comments	Article Number: 341500

14.2. UN proper shipping name

ADR	SIGNAL DEVICES, HAND
RID	SIGNAL DEVICES, HAND
IMDG	SIGNAL DEVICES, HAND
ICAO/IATA	SIGNAL DEVICES, HAND

14.3. Transport hazard class(es)

ADR / RID / ADN	1.4G
Class Code ADR/RID/ADN	1.4 G
Subsidiary Risk ADR/RID/ADN	1.4 G

RID	1.4G
IMDG	1.4G
Class Code IMDG	1.4 G
ICAO/IATA	1.4G
Class Code ICAO	1.4 G

14.4. Packing group**14.5. Environmental hazards**

IMDG Marine pollutant	No
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14.6. Special precautions for user

EmS	F-B, S-X
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Special safety precautions for user See P-statements in Section 2.2.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**Additional information.**

Additional information.	UN-number: 0191 Signal devices, hand. Packaging in cardboard 1.4G. Packaging instructions: P135. Order article number: 341500 UN-number: 0373 Signal devices, hand Packaging in steel cage + cardboard: 1.4S. Packaging instructions: P135. Order article number: 341570
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IMDG / ICAO / IATA Other information

IMDG Other information	Swedish Rescue Service Agency Cert. No.: 2009-4268 (11-12) (UN-nr 0191 och 0373) EX-nr (DOT/USA): EX2006030023 (UN-nr 0191)
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Legislation and regulations	Safety data sheet and classification in accordance with regulation 1272/2008 /EC (CLP) and regulation 830/2015/EC.
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15.2. Chemical safety assessment

Chemical safety assessment performed	Yes
Chemical Safety Assessment	Chemical safety investigation (CSI) is established for the product.

SECTION 16: Other information

CLP Classification, Comments	Classification and labelling are based on CLP (Regulation 1272/2008/EC and Regulation 830/2015/EC)
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Expl. 1.4; H204; Acute tox. 4; H302; Eye Irrit. 2; H319;
List of relevant H-phrases (Section 2 and 3).	H302 Harmful if swallowed. H400 Very toxic to aquatic life. H272 May intensify fire; oxidiser. H204 Fire or projection hazard. H319 Causes serious eye irritation.
Version	2
Responsible for safety data sheet	Nammo Sweden AB