

SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 as amended



SDS PyroPol Handflare Red CF4
Issued: December 2018_Rev.00

SECTION 1: PRODUCT AND COMPANY INFORMATION

Product Name:

Handflare Red CF4, Art.-No.: 1393500
CIL/ORION Handflare Red CF4, Art.-No.: 1393510

Area of Usage:

Marine distress signal

Manufacturer:

Company name: PyroPol GmbH
Company address: Lippenhorstweg 29, 21514 Hornbek, Germany
E-Mail / Internet: info@pyropol.de / www.pyropl.de
Telephone No.: +49 – (0) 4158 – 89 00 73
Telefax No.: +49 – (0) 4158 – 89 00 97

24 h Emergency Contact No.: +49 – (0) 171 – 126 15 95

SECTION 2: HAZARDS IDENTIFICATION

Main health hazard: Hazards refer to contents of flare
Inhalation: May be mildly irritating to respiratory system
Skin contact: May be mildly irritating to skin. Contact with flame or hot tube can cause severe burns.
Eye contact: Irritating to eyes
Ingestion: Harmful if swallowed
Fire and explosion hazards: Risk of explosion by shock, fire, friction, or other sources of ignition
Environmental hazards: Not classified as hazardous to the environment

CLP Classification	DPD Classification
Explosive division 1.4 – H204	Explosive – R2
Acute toxic category 4 – H302	Harmful – R22/36
Eye irritant category 2 – H319	

For full wording of hazard statements see Section 16

Label:

Danger Symbol:



Key Word:

Warning

WARNING: Contains Strontium Nitrate

Danger Advice Documents:

H204 Fire or projection hazard
H302 Harmful if swallowed
H319 Causes serious eye irritation
P102 Keep out of reach of children
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P301 + P310 If swallowed: Immediately call a POISON CENTER or doctor/ physician
P309 + P311 If exposed or you feel unwell: call a POISON CENTER or a doctor/ physician
P370 + P380 During Fire, evacuate immediate area
P374 Fire fighting under normal precautions from a reasonable distance
P501 Dispose of contents / container to authorized waste disposal facility

Other hazards:

May be mildly irritating to skin and respiratory system.
Contact with flame or hot tube can cause severe burns.

SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 as amended



SDS PyroPol Handflare Red CF4
Issued: December 2018_Rev.00

SECTION 3: COMPONENT INFORMATION

Hazardous component(s):

Under CLP EC1272/2008

Substance	CAS No	REACH registration No	%	Mass (g)	CLP Hazard Category and H statements
Strontium nitrate	10042-76-9	01-1210007501-75	55% in illuminating mixture	30	Oxidizing solid Cat. 3 – H272 Acute toxic Cat. 4 – H302 Eye irritant Cat. 2 – H319

Also contains magnesium powder stabilized with polymerized linseed oil.

Under DPD EC1999/45

Substance	CAS number	EC number	%	Mass (g)	Symbol and Risk phrases
Strontium nitrate	10042-76-9	233-131-9	55% in illuminating mixture	30	O, Xn: R8/22/36

SECTION 4: FIRST AID MEASURES

General Advice:	Not defined
After Inhalation (Combustion Gases):	Having problems after inhaling move patient to fresh air, consult a physician
After Skin Contact:	Wash with plenty of water, consult a physician
After Contact with Eyes:	Wash with lots of water, contact a physician
After Swallowing:	Not possible to swallow product
Advice for doctors	
Symptoms:	Not defined
Dangers:	Not defined
Actions to be taken:	Not defined

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing media	
Suitable extinguishing media:	Use any extinguishing media at early stages of fire. Once the product has ignited, it cannot be extinguished.
Not to be used:	No restriction
Special hazards arising from the substance or mixture:	Product is explosive, evolving large quantities of gases and emitting large quantities of heat radiation if involved in fire
Advice for fire fighters:	The usual protective gear in case of fire

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	
Personal precautions:	Normal industrial hygiene. Use protective gloves.
Environmental Precautions:	Do not let waste reach drains, sewers and bodies of water, or leak into ground
Methods and material for containment and cleaning up:	Collect using non sparking tools, reuse if undamaged. Otherwise, keep for disposal by experts.
Reference to other sections:	See Sections 8 and 13

SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 as amended



SDS PyroPol Handflare Red CF4
Issued: December 2018_Rev.00

SECTION 7: HANDLING AND STORAGE

Handling

Advice on Safe Handling: Conforming instructions printed on the signal.
Protect from exposure to impacts, friction, heat, fire, sparks, electrostatic charges and other ignition sources.
Avoid dropping the signal on hard surfaces.
Do not use damaged product.

Conditions for safe storage, including any incompatibilities

Storage: Temperature should not exceed 65°C

Specific end use(s): Marine distress signal

Storage

Requirements of Storage Facility and Container: Store in a cool and dry place.
Store only in the original packaging and according to the local regulations regarding the storage of explosive materials.

SECTION 8: PERSONAL PROTECTION/EXPOSURE CONTROLS

Control parameters: None set

Exposure controls

Recommended engineering controls: No fire, sparks or welding close to the items. If cleaning up spillage, use tools which cannot strike sparks.
Personal protective equipment: Normally not needed. But in case of spillage:
Respiratory protection: In case of dust use particle filter mask such as EN143 Type P or EN149 Type FFP-S
Hand protection: Leather or similar protective gloves
Eye protection: Shatter proof glasses or goggles
Skin protection: Normal industrial hygiene
Specific hygiene measures: No smoking
Further information: Always check applicability with your supplier of protective equipment

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Silver metal tube with yellow handle and red cap
Odor: None
Odor threshold value: Not applicable
pH (concentrated product): Not applicable
Melting point (°C): Not determined
Boiling point/ range (°C): Not applicable
Flash point (°C): Not applicable
Evaporation rate: Not applicable
Flammability: Contents are flammable
Explosive properties: Intrinsically explosive
Vapor pressure (mbar at 25°C): Not applicable
Vapor density: Not applicable
Density at 20°C (g/cm³): Not determined
Solubility in water (% by weight): Insoluble
Solubility in solvents: Not determined
Partition coefficient (log Pow): Not applicable
Autoignition temperature (°C): > 250
Decomposition temperature (°C): Not determined
Viscosity: Not applicable
Oxidizing properties: Contents have oxidizing properties

Other information

Note: These are typical values and do not constitute a specification

SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 as amended



SDS PyroPol Handflare Red CF4
Issued: December 2018_Rev.00

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Stable product under recommended handling and storage conditions
Chemical stability:	Stable product under recommended handling and storage conditions
Possibility of hazardous reactions:	Stable product under recommended handling and storage conditions
Conditions to avoid:	High temperatures, above 100°C
Incompatible materials:	Not applicable
Hazardous decomposition products:	Product is explosive, evolving large quantities of gases and emitting large quantities of heat radiation if involved in fire

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

No data available on mixture. Data based on individual components shown below

Hazardous ingredients:	Strontium nitrate
Acute toxicity:	Strontium nitrate: LD ₅₀ oral rat 1892 mg/kg, harmful by ingestion Calculated product ATE ingestion = 3440 mg/kg, not classified as hazardous by ingestion
Skin corrosion / irritation:	No classifiable effects known
Serious eye damage / irritation:	Strontium nitrate: Eye irritant category 2 under CLP
Respiratory or skin sensitisation:	No ingredients classified as sensitisers
Germ cell mutagenicity:	No deleterious effects known
Carcinogenicity:	No deleterious effects known
Reproductive toxicity:	No deleterious effects known
STOT-single exposure:	No deleterious effects known
STOT-repeated exposure:	No deleterious effects known
Aspiration hazard:	No deleterious effects known

Likely routes of exposure: Contact with skin

Symptoms related to the physical, chemical and toxicological characteristics: Powders may be mildly irritating to the skin, eyes and respiratory tract. May cause gastric irritation, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure: No deleterious effects known

Other information: None

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:	No toxic ingredients contained in the mixtures
Persistence and degradability:	Not applicable. Contains inorganic materials and is in form of solid article.
Bioaccumulative potential	
Mobility:	No test data on product
Mobility in soil:	None. Product in form of solid article.
Results of PBT and vPvB assessment:	Does not fulfill the criteria for classification as PBT or vPvB
Other adverse effects:	Not a marine pollutant (IMDG code)

SECTION 13: DISPOSAL

Waste treatment methods

Disposal of waste materials: Disposal should be carried out in accordance with local health and safety, waste, environmental and storage / manufacture of explosives regulations.
DO NOT TRY TO DISMANTLE THE PRODUCT!

SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 as amended

SDS PyroPol Handflare Red CF4
Issued: December 2018_Rev.00

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID, GGVSEB)

UN No.: 0373
Proper Shipping Name: SIGNAL DEVICES, HAND
Transport Class / Label: 1.4S
Packing Instruction: P135

Sea Transport (IMO-IMDG Code, GGVSee)

UN No.: 0373
Proper Shipping Name: SIGNAL DEVICES, HAND
Transport Class / Label: 1.4S
Packing Instruction: P135
EMS Code: F - B, S - X
Comment: Not classified as Marine Pollutants

Air Transport (ICAO/IATA DGR)

UN No.: 0373
Proper Shipping Name: Signal devices, hand
Transport Class / Label: 1.4S
Packing Instruction: P135
Additional information: Passenger and Cargo Aircraft

EX Number (DOT/USA): N/A



Explosive substances and
explosive articles
Subclass 1.4

SECTION 15: REGULATORY INFORMATION

**Safety, health and environmental regulations /
legislation specific for the substance or mixture:** None specified

Chemical safety assessment: A chemical safety assessment has not been
carried out on this mixture

Other Regulations: Work Protection Law, Health Protection Law,
Explosives Regulations and Explosive Law must be
conformed to. The item is not subject to safety evaluations.

SECTION 16: OTHER INFORMATION

R-phrases used in this document

R2	Risk of explosion by shock, friction, fire, or other sources of ignition
R8	Contact with combustible material may cause fire
R22	Harmful if swallowed
R36	Irritating to eyes

H-statements used in this document

H204	Fire or projection hazard
H272	May intensify fire, oxidizer
H302	Harmful if swallowed
H319	Causes serious eye irritation

Abbreviations and Acronyms:

GHS	Globally Harmonized System of Classification and Labelling of Chemicals
CAS-No.	Registration Number of the <u>Chemical Abstract Service</u>
EG-No.	Registration Number of the <u>European Inventory of Existing Chemical Substances (EINECS)</u>
EG-Index-No.	ID Code for a particular dangerous material
AGW-value	Work Place Safety/Limit Value
BGW-value	Biological Work Place Safety/Limit Value
CMR-Substance	Cancerogen, Mutanogen, Fertility Damaging

SAFETY DATA SHEET

Based on Regulation (EC) No. 1907/2006 as amended



SDS PyroPol Handflare Red CF4
Issued: December 2018_Rev.00

The information in the safety data sheet is based on our present knowledge. It is intended to describe our products with regard to safety requirements and is not intended to guarantee any particular properties.

This is a voluntary product information.

There is no legal obligation to issue a safety data sheet according to Regulation (EC) No 1907/2006 as amended.