Product Name: Light-Smoke Signal Revised:



<u>1. Product and Company Information</u>

Type of Product:

Comet Light and Smoke Signal, Art.-No. 9181600 Pains Wessex Manoverboard MK9, Art.-No. 9537800

Area of Usage: Sea distress signal Manufacturer's Name and Address: Drew Marine Signal and Safety Germany GmbH Vieländer Weg 147 D-27574 Bremerhaven/Germany

Contact Point for Technical Information:

Telephone Number during office hours: +49 (0)471 393-0, FAX:-210, E-Mail:<u>info@signalandsafety.com</u> **Responsible for the Data Sheet:** <u>info@signalandsafety.com</u> **Accident Information 24 h:** Tel. +049-(0)178-433-7434 (Consultant Lutz Harder GmbH)

2. Hazard Information

Classification:

Explosive 1.4

Danger Symbol:



Key Word:

Danger Advice Documents:

H204	Risk by fire or splinter, explosive pieces
P210 P240 P250 P280 P370 + P380 P372 P374 P401 P501	Keep away from heat/sparks/open flames/hot surfaces. No smoking. Earth the container and the device in which it is used. Do not scratch, bash or rub device. Wearing of protective gloves, clothes, glasses and face mask. During Fire, evacuate immediate area Danger of explosion during fire. Fire fighting under normal precautions from a reasonable distance. Store according to the following conditions: dry and not over 75°C. Product is to be handled as hazardous waste.
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Additional Dangers for People and the Environment

Hazard description:	Flammable
Additional Advice:	Burn hazard if not used conforming manual instructions.
	During firing do not inhale smoke

3. Component Information

Chemical Characteristics: Description: Dangerous Contents: Oxidiser and Fuel Mix. Pressed pyrotechnical powder.

Name	CAS-No.	EG-No.	EG-Index-No.	H- Sets / Content
Potassium	3811-04-9	223-289-7	017-004-00-3	271, 302, 332, 411
Chlorate				
Black Powder	7757-79-1			272
Barium Nitrate	10022-31-8	233-020-5	056-002-00-7	272, 332, 302, 319
Lithium Battery:	n.A.	n.A.	n.A.	n.A.



4. First Aid Measures

General Advice: After Inhalation (Combustion Gases): After Skin Contact: After Contact with Eyes: After Swallowing: After swallowing contents: Advice for doctors: Symptoms: Dangers: Actions to be taken:

5. Fire Fighting Measures

Suitable Extinguishing Method:

Inappropriate Extinguishers: Particular dangers due to the use of the product, the products of its combustion or gases: Specific protective equipment: Additional Advice: *Fire Class: Temperature Class:*

6. Accident Prevention Measures

Personnel related safety issues: Environmental protection Issues: Methods for cleaning:

7. Handling and Storage Issues

Handling Advice on Safe Handling:

Explosion and Fire Protection Advice: Additional Advice:

Storage

Requirements of Storage Facility and Container:

Collective Storage Advice:

Additional Advice to Storage: Storage Classification: Compatibility Group: Not defined Having problems after inhaling smoke, consult a physician. Wash with lots of water Wash with lots of water, contact a physician Not possible to swallow product Having problems after swallowing smoke, consult a physician.

Not defined Not defined Not defined

Once signal is ignited, it cannot be extinguished. Extinguishing device should be chosen according to the surrounding environment. No data available.

None. The usual protective gear in case of fire.

None. Do not expose to temperatures higher than $71^{\circ}C / 160^{\circ}F$.

Use signal only in emergency cases. Not applicable. Not applicable.

Conforming instructions printed on the signal. Protect from exposure to impacts, friction, heat, fire, sparks, electrostatic charges and other ignition sources. Do not use damaged product, avoid heat sources. Only use product for its official intended purpose. None.

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. Only store with non-dangerous goods or with goods of the same danger class. None 1.4 S

8. Explosion Limitation and Protective Equipment

Additional advice regarding the assembly of the

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device:

No data available.

Components of work space oriented threat, to monitor limits:

limits:		None.		
AGW-value (TRGS 90	0)			
CAS-No.	Substance	character	value	
-	-	-	-	
BGW-value (TRGS 90	3)		· ·	
CAS-No.	Substance	BGW-value Parameter	material	
-	-	-	-	
CMR- Substance (TR	GS 905)			
CAS-No.	Substance	category	note	
-	-	-	-	

Breathing Equipment: Hand Protection: Eye Protection: Body Protection: Limitation and monitoring of exposure: Not required. Not required. Not required. Not required. None.

9. Physical and Chemical Qualities

Appearance

Form:

Colour:

Metal casing with pressed explosive material inside. Outer Casing: Orange / yellow Pyrotechnical Contents: Black / grey. Neutral.

Smell:

Safety Data:			- I
character	value	method	comment
pH-Value at 20°			Not applicable
Melting Point (°C)			Not applicable
Boiling Point (°C)			Not applicable
Flashpoint (°C)	160 / 320		
Ignition Temperature (°C)			No data available
Vapour Pressure (hPa at 20°C)			Does not apply
Density (g/cm ³) :			No data available
Density of Pyrotechnical Contents			
(g/cm ³)			Not data availabel
Apparent Density (Kg/m ³)			No data available
Water solubility (20°C in g/l)			Not water soluble
Distribution Coefficient n-			
Oktanol/Water (log Pow)			Does not apply
Viscosity Dynamic (mPa s/20°C)			Does not apply
Lower Explosive Limit :			No data available
Upper Explosive Limit:			No data available

10. Stability and Reactivity

Thermal Decomposition / Conditions to avoid:

Materials to avoid: Dangerous reactions: Dangerous Corrosive Products: Temperatures >160°C (320°F). Strong mechanical stress, E.g. through hitting or throwing. Not defined During intended use: Flames, heat and smoke. No data available

<u>11. Toxicology Information</u>

Acute Toxicity: Effects on animals: (for the products of usage when used in the correct manner) Breathing in the combustion gases (air limit 6 mg/m³). None.

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None.

None.

None.

None.

None.

Not defined.

Not defined.

Not defined.

Not defined.

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Yes

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Yes

None

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Yes

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Signals, Smoke

Signals, Smoke

Smoke Signal, orange

None.

Light irritation of the mucus membranes possible.

When used in the appropriate manner, no danger exists.

No ecologically relevant effects are produced during usage.

Disposal should be carried out in accordance with local health and safety, waste, environmental and storage / manufacture of explosives

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Irritation and cauterization effect: *On the skin: In the eyes:* Allegisation: Subacute / chronic toxicity: Usage related observations: *Classification of relevant observation: Other observations:* Additional advice about Toxicology:

12. Ecological Information

Eco-toxicity: Mobility: Persistence and Degradability: Absorption and accumulation in organisms: Other damaging characteristics: Additional advice:

13. Disposal Information

Disposal / Waste (Product): Recommendation:

AVV-waste key

14. Transport Information

Land transport (ADR,Rid,GGVSE)

Dangerous Goods Class: Division / Compatibility Group: UN-Number:

Danger Notice: warning sign Proper Shipping Name:

Sea Transport (IMDG-Code/GGVSee) Dangerous Goods Class: Division / Compatibility Group: UN-Number: Packaging Group: Danger Notice: warning sign Technical Name: Air Transport (ICAO-IATA/DGR) Dangerous Goods Class: Division / Compatibility Group UN-Number: Packaging Group: Danger Notice: warning sign Proper Shipping Name: Additional advice:

15. National and Regional Regulations

Safety Appraisal: Labelling: ID Letter for Symbol: Indication of Danger: Special marking of defined preparation: Not applicable

Signals, Smoke

E See point 2 "Hazard Information". Not defined



Explosive substances and explosive articles Subclass 1.4

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Hints of marking Other EU Regulations: National Regulations: Activity Limitations: Chemicals prohibition regulation: Accident/Failure Regulation: TA-Air: Water Danger Class: Other Regulations:

Not defined Minimum age: 18 Years. Not defined Does not apply. Does not apply. Not defined Work Protection Law, Health Protection Law, Explosives Regulations und Explosive Law must be conformed to. The item is not subject to safety evaluations.

Drew Marine

Material Safety Evaluation:

16. Other Information

The information in the material 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.

Not defined

This is a voluntary product information. There is no legal obligation to issue a safety data sheet according to Regulation (EC) No 1907/2006.

Abbreviations and Acronyms

GHS	Globally Harmonized System of Classification and Labelling of Chemicals
CAS-No.	Registrations Number of the "Chemical Abstract Service"
EG-No.	Registrations Number of the "European Inventory of Existing Chemical Substances" (EINECS)
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	Cancergen, Mutanogen, Fertility Damaging
AVV	Waste Index Regulation
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