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SAFETY DATA SHEET
ARTEM SMOKE FLUID

SAFETY DATA SHEET

IDENTIFICATION OF THE SUBSTANCES/PREPARATION AND THE COMPANY:

PRODUCT NAME: SMOKE FLUID 15
SUPPLIER: ARTEM LTD
Perivale Industrial Park
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1. COMPOSITION/INFORMATION ON INGREDIENTS:

INGREDIENT NAME:	CAS NO.	EINECS No.	Concentration Range
White Mineral Oil	8042-47-5	232-455-8	
Propellant (Carbon Dioxide)	00124-38-9	2046969 (from EINECS)	

Composition comments: Smoke fluid 15

2. HAZARDS IDENTIFICATION:

No toxicity
Inert materials - completely biodegradable
No long-term adverse effects

3. FIRST AID MEASURES:

INHALATION: Remove casualty from source of contamination/to fresh air if possible. Perform artificial respiration if breathing has stopped. Keep affected person warm and at rest. Get prompt medical attention.

INGESTION: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. Do **NOT** induce vomiting. Get medical attention immediately. Promptly get affected person to drink copious quantities of clean water to dilute swallowed chemical.

SKIN: Remove persons from source of contamination. Promptly flush heavily contaminated skin with water. Get immediate medical attention. Seek medical assistance if skin irritation persists.

EYES: Remove casualty immediately from source of contamination. Wash the eyes with copious quantities of clean water. Seek medical attention if problems and irritation or discomfort persist.

4. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA:

Dry chemicals, sand, dolomite. water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES:

Cool containers exposed to flames with water from side until well after fire is out. Move containers from fire area if it can be done without risk. Use water spray to reduce vapours. Pressurised aerosols canisters in bulk store may explode in fire. Use un-manned hose holder or monitor in fires in mass storage.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Pressurised aerosols may explode in a fire. Heat may cause containers to explode. Explosion risk in a fire.

HAZARDOUS DECOMPOSITION PRODUCTS: None

PROTECTIVE MEASURES IN FIRES: Normal - as required

5. ACCIDENTAL RELEASE MEASURES:

CONTAINMENT AND CLEAN UP:

- Contain spilled liquid with sand or earth.
- Recover by pumping (use an explosion proof or hand pump) or with a suitable absorbent.
- If liquid is too viscous for pumping, scrape up with shovels or pails and place in suitable containers for recycle or disposal.

6. HANDLING AND STORAGE:

HANDLING:

Advice on safe handling:

- Handle and open containers with care.
- Ensure good ventilation.

Advice on protection against fire and explosion:

- It is not known if this material is a static accumulator. Therefore, use proper grounding procedures.
- DO NOT handle near an open flame, sources of heat or sources of ignition.

Advice on environmental protection:

- Avoid release to the environment.
- Avoid handling near drains, unmade ground and open waterways.

STORAGE:

Advice on safe storage:

- Store in a cool, well-ventilated place away from incompatible materials – see Section 9 Stability and Reactivity.
- Keep container closed.
- DO NOT store near an open flame, sources of heat or sources of ignition.
- Protect material from direct sunlight.
- Avoid storing near drains, unmade ground and open waterways.

Suitable materials and coatings:

- stainless steel, mild steel

Unsuitable materials and coatings:

- Compatibility with plastic materials can vary; we therefore recommend that compatibility be tested prior to use.

ADDITIONAL WARNINGS

- DO NOT pressurise, cut, heat or weld containers. Empty product containers may contain product residue. DO NOT reuse empty containers without commercial cleaning or reconditioning.
- Container remains hazardous when empty. Continue to observe all precautions.

7. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

OCCUPATIONAL EXPOSURE LIMITS – WEL

Name	LTEL – 8 hrs		STEL – 15 min		Std	Notes
	mg/m ³	ppm	mg/m ³	ppm		
Oil mist	5					supplier information

ENGINEERING CONTROL MEASURES / VENTILATION

- The use of mechanical dilution ventilation is recommended whenever this product is used in a confined space, is heated above ambient temperatures or otherwise to maintain ambient concentration below the recommended threshold exposure limits.

HYGIENIC WORK PRACTICES:

PERSONAL PROTECTION

General Advice

- The use and choice of Personal Protection Equipment is related to the hazard of the product, the workplace and the way the product is handled. In general, we recommend as a minimum safety precaution that safety glasses with side shields and work-clothes protecting arms, legs and body be used. In addition, any person visiting an area where this product is handled or processed should at least wear safety glasses with side shields.
- When using, do not eat drink or smoke. Wash hands before breaks and immediately after handling the product.

8. PHYSICAL AND CHEMICAL PROPERTIES:

These are indicative values only. Please refer also to the product specification sheet.

GENERAL INFORMATION:

Appearance	liquid
Colour	colourless
Odour	odourless
Odour threshold	not given – odourless
pH	not applicable – not water soluble
Melting / freezing point	< -12°C pour point
Boiling Point Range	310 – 480°C
Flash Point (method)	> 150°C (COC)
Evaporation Rate (n-butyl acetate = 1)	< 0.1
Flammability	not flammable
Explosive limits in air	not applicable – not flammable
Vapour Pressure	< 0.1 mmHg (20°C)
Vapour Density (air=1)	> 1 (101.3 kPa)
Density	0.83 – 0.865 g/mL (15°C)
Solubility in water	insoluble
Partition coefficient (n-octanol / water)	> 1
Auto Ignition Temperature	> 150°C (no method)
Decomposition temperature:	not given
Viscosity	15 cSt (40°C)
Explosive properties	not explosive
Oxidising properties	not an oxidiser

OTHER INFORMATION:

Polycyclic aromatics	< 3%
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9. STABILITY AND REACTIVITY:

STABILITY: Completely stable

CONDITIONS TO AVOID: Excessive heat and direct sunlight. Completely non-hazardous

HAZARDOUS DECOMPOSITION PRODUCTS: No hazardous by-products.

MATERIALS TO AVOID: Non specified

10. TOXICOLOGICAL INFORMATION:

ACUTE TOXICITY:

Route of exposure:	Endpoint	Values	Species	Method
Oral	LD50	> 2000 mg/kg	rat	not given
Dermal	LD50	> 2000 mg/kg	rabbit	not given
Inhalation	LC50	> 5000 mg/m ³ /4hr	rat	not given

IRRITATION AND CORROSION:

Target organ effects	Species	Result	Method	
Skin	not given	not an irritant	not given	
Eyes	not given	temporary irritation, but no damage	not given	
Respiratory tract	not given	temporary irritation, but no damage	not given	

SENSITISATION:

Target organ effects	Species	Evaluation	Method	
Skin	guinea pig	not a sensitiser	not given	
Respiratory tract	not given	not a sensitiser	not given	

SUB-ACUTE, SUB-CHRONIC, AND PROLONGED TOXICITY:

Type	Dose	Species	Method	
not given				

11. ECOLOGICAL INFORMATION:

ECOTOXICITY:

Species	Endpoint	Exposure time	Values	Method
Fish – rainbow trout	LC50 (0% mortality)	96 hrs	> 400,000 ppm	not given
Algae	not given			
Invertebrate – mysidopsis bahia	LC50	96 hrs	> 500,000 ppm	not given

- Not expected to demonstrate chronic toxicity to aquatic organisms.

PERSISTENCE AND DEGRADABILITY:

- Inherently biodegradable: 50% in 28 days (OECD 301B).
- Expected to degrade rapidly in the air.

12. DISPOSAL CONSIDERATIONS:

DISPOSAL METHODS: Empty aerosol containers are **not to be burnt** due to explosion hazard. Dispose of in full accordance with Local Authority requirements. Do not mix with other waste materials. Ensure that any waste is packaged and clearly marked as PRESSURISED CANISTERS - DO NOT BURN OR PIERCE.

13. TRANSPORT INFORMATION:

LABEL FOR CONVEYANCE: In bulk - CHIPS label denoting PRESSURISED CONTAINERS
ROAD TRANSPORT:
UN No. ROAD: UN No. 1950 - AEROSOL
ADR Class No.: Class 2.2 Gases: Compressed, liquefied or dissolved under pressure.
ADR Class: 2
ADR Item No.:
HAZARD No. (ADR):
ADR LABEL No.: 2
PROPER SHIPPING NAME: AEROSOL PRODUCT - No hazard LQ

14. REGULATORY INFORMATION:

LABEL FOR SUPPLY: Smoke fluid
RISK PHASES: Not classified
SAFETY PHASES:
S-9 Keep container/s in well ventilated area/room/store
S-16 Keep containers away from sources of heat or ignition – pressurised container
S-2 Keep out of reach of children or unauthorised users
S-3 Keep in secure cool place
S-15 Keep away from heat or sources of ignition

15. OTHER INFORMATION

INFORMATION SOURCES:

ISSUED BY: ARTEM Ltd

SAFETY DATA SHEET STATUS: Approved for issue with product

DATE: 25 March 2010

FURTHER INFORMATION: For further product or material advice and information please contact the (See Section 1.)

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