



Material Safety Datasheet (MSDS)



Section 1: Product & Company Identification:

| | |
|-----------------------------------|---|
| Trade Name/Product identification | LIFECO C6 AFFF Foam Concentrate Type 1 |
| Application & Use | Fire Extinguishing Foam Concentrate |
| Manufacturer Address | LICHFIELD FIRE & SAFETY EQUIPMENT CO LTD Address: Edmund House, 12-22 Newhall Street, Birmingham, B3 3AS, United Kingdom. T. + 44 (0) 1902 798 706 Email: sales@lifeco-uk.com – engg@lifeco-uk.com Website : www.lifeco-uk.com |
| Product Description | Mixture of hydrocarbon surfactants, fluoro surfactants & solvents |

Section 2: Ingredient - Composition Information:

| MAJOR INGREDIENTS | CONCENTRATION % | CAS.No. | HEALTH CLASS |
|-----------------------------------|-----------------|-----------|-----------------|
| 1. Hydrocarbon Foaming Agent | 5 -20% | N/A | Xi R 36, 37, 38 |
| 2. Amphoteric fluorinated Polymer | 5-20% | N/A | -- |
| 3. Solvent | 5-20% | -- | -- |
| 4. Water | QS | 7732-18-5 | -- |

Section 3: Hazard Identification:

| | | | | |
|--|-------------|--------------------------|--|----------------|
| Flammability | | Corrosive Material | Little corrosive to metal likes MS, Bronze, Aluminum | |
| LEL %v | N/A | | | |
| UEL %v | N/A | | | |
| TDG Flammability | N/A | Organic Peroxide | No | |
| Explosion Sensitivity to impact | None | Auto-ignition | N/A | |
| Flammable Material | No | Temperature °C | | |
| Oxidizer | No | Hazardous Polymerization | Will not occur | |
| Flash Point | >98°C | Explosive Material | No | |
| Explosion Sensitivity to static Electricity | None | Pyrophoric Material | No | |
| Combustible Liquid | No | Others | N/A | |
| Hazardous Combustion Products: Not known. However oxides of carbon, nitrogen and sulfur may be formed during use for extinction of fire. | | | | |
| NFPA Hazard Signals | Health 1 | Flammability 0 | Stability 0 | Special N/A |



Emergency Overview:

| | FIRE |
|--------------------------|---|
| Fire Extinguishing Media | Material is itself a fire extinguishing agent |
| Special Procedures | None |
| Unusual Hazard | None |
| | EXPOSURE |
| User guidelines | Avoid getting chemicals on you or in you. Cause eye-irritation and may cause skin irritation. Swallowing large amount of chemicals may cause injury or irritation |
| | SPILLS |
| Steps to be taken | Stop leak. Collect spilled concentrates. Rinse the affected area with plenty of water until it no longer foams. Care should be taken to avoid slip hazard. |

Section 4: First Aid Measures:

Flush eyes with water at least for 15 minutes. Remove contaminated clothing. Wash skin with ample water several times. If ingested, have victim drink water and obtain medical attention immediately.

Section 5: Fire Fighting Measures:

| | |
|---------------------------------|---|
| Fire Extinguishing Media | Material is itself a fire extinguishing agent |
| Unusual Hazard | None |
| Flammability | |
| LEL %v | N/A |
| UEL %v | N/A |
| TDG Flammability | N/A |
| Explosion Sensitivity to impact | None |
| Flammable Material | No |
| Flash Point | >98°C |

Section 6: Accidental Released Measures:

Stop leak. Use appropriate protective equipment during cleanup. Collect spilled concentrates. Rinse the affected area with plenty of water until it no longer foams. Care should be taken to avoid slip hazard. Disposal into drains should be avoided if at all possible and should under no circumstances be allowed without first consulting the local water authority and environment agency and also be made in accordance with federal, state and local regulations. Spillage can be absorbed with sand or contained with earth or spill control material. Shovel up spillage and place in labeled, sealable container for subsequent safe disposal as per local laws.

Section 7: Handling & Storage:

Handling: No special handling techniques are required. Avoid getting chemicals on you or in you. Wash hands after handling chemicals. Don't eat or drink while handling chemicals.

Section 7: Handling & Storage:

Storage: Recommended storage temperature is 1.7°C to 49°C. No Special conditions are required for safe storage. The product should be stored in original sealed containers above 1.7°C and below 49°C and as much as possible it should keep from being washed into surface water.

Section 8: Exposure Controls / Personal Protection:

Avoid getting chemicals on you or in you. Use tightly sealed safety glass or goggles for eye protection, use PVC/Nitrile or butyl rubber gloves, apron and rubber boots for skin protection. Use in well ventilation area and avoid prolong, extensive or repeated inhalation.

Section 9: Physical & Chemical Properties:

| | | | |
|---------------------|--------------------------|---------------------------|--------------------|
| Physical State | Clear non-viscous Liquid | Vapour Density (Air=1) | Data not available |
| Odour | Characteristic | Density at 20oC | 1.02-1.06g/ml |
| Appearance | Light yellow | Vapour Pressure | Data not available |
| Boiling point/Range | 100°C (Initial) | @35°C,mm Hg | |
| Pour point | Flow at 1.7°C | Solubility in water @30°C | 100% Soluble |
| | | pH | 6.0 - 8.5 |

Section 10: Stability & Reactivity:

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|-------------------------------------|---|
| Chemical Stability | Stable |
| Incompatibility with other material | Avoid use of product on burning metals, electrically energized equipment and contact with water reactive material |
| Reactivity | None |
| Hazardous Reaction Products | Not known |

Section 11: Toxicological Information

| | |
|----------------------------------|---|
| Effects of exposure/Symptoms | Cause eye-irritation and may cause skin irritation. Swallowing large amount of chemicals may cause injury or irritation |
| Permissible Exposure Limit, LD50 | >6gm/Kg body wt. of rat (oral) |

Section 12: Ecological Information;

This product is an ecologically inert material. It does not contain ozone depleting substances and is not expected to exert an eco-toxic effect or bio-accumulated in the food chain. The product does not contain any ethylene glycol or its ether derivatives or polymers, Propylene glycol or its ether derivatives or polymers, Hexylene Glycol

ADDITIONAL INFORMATION/REFERENCES

BOD₅/ COD > 50 %

BOD₁₀/ COD > 70 %

BOD₁₅/ COD > 90 %

COD < 6000 mg O₂ / l

Section 13: Disposal Consideration:

The product shall not have any significant detrimental effect on the environment, nor present a waste disposal problem however prevent discharge foam/foam solution to waterways without treatment. Waste disposal should be made in accordance with central, state and local regulations. Waste may be incinerated or disposed of by treatment at a permitted facility only with permission or as advised by competitive authority.

Section 14: Transport Information

Not classified as dangerous or Hazardous for transport under UN, IMO, ADR/RID and IATA/ICAO

Section 15: Regulatory Information

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|---|--|
| Shipping Name | N/A |
| Shipping Code/Label | N/A |
| Hazardous waste I.D. No | N/A |
| Label for supply | None required |
| UK regulatory references | Health and safety at work act 1974 Chemical (Hazard information & Packaging for supply) Regulation 1994/Amendment Regulations 1996 |
| EC directives | Substances Directive 67/548/EEC as amended by 69/81/EEC, 70/189/EEC, 73/146/EEC, 75/409/EEC, 79/831/EEC, General Preparations Directives 88379/EEC |
| Statutory Instruments | Chemical (Hazard information & Packaging for supply) Regulation 1994/Amendment Regulations 1996 |
| Guidance Notes | Occupational exposure limit EH40/96 |
| Transportation of Dangerous Goods information | Non required as per ADR/RID/IMGD, IATA & 49 CFR |

Section 16: Other Information

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|------|---|--------------------------------------|
| CAS | : | Chemical Abstracts Service |
| DOT | : | Department of Transportation |
| NFPA | : | National Fire Protection Association |
| TDG | : | Transportation of dangerous goods. |
| UEL | : | Upper exposure limit |
| LEL | : | Lower exposure limit. |

DISCLAIMER

This information is based on our knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product. User is required to ensure suitability of the product for the intended use, compliance to regulations, for its safe use and disposal. LICHFIELD FIRE & SAFETY EQUIPMENT CO LTD will not be held responsible or liable for any injury or accident of any kind.