

PRODUCT SAFETY DATA SHEET**LIGHT WATER™ AFFFC - 206****1. Identification of the substance / Preparation** **Light Water™ AFFFC-206****Trade Name**

ZF-0002-0054-1	ZF-0002-0373-5	ZF0002-0436-0	GF1000-0021-5	XF-0008-0073-0	XF-0008-0074-8
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3M
Product ID

2. Composition / Information on Ingredients

Ingredient name and classification	CAS number	Percentage
Water	7732-18-5	75.0 – 83.0
Diethylene Glycol Butyl Ether (xi: r: 36)	112-34-5	17.5
Fluoroalkyl Surfactants	-----	0.5 – 2.0
Synthetic Detergents	-----	0.5 – 2.0
Residual Organic Fluorochemicals	-----	Not Determined

3. Hazards Identification

Critical Hazards May cause eye irritation

4. First – Aid Measures

Eye contact Immediately flush eyes with large amounts of water. Get immediate medical attention.

Skin contact Flush skin with large amounts of water. If irritation persists get medical attention.

Inhalation If signs or symptoms occur, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get medical attention.

Ingestion If swallowed, call a medical doctor immediately. Only induce vomiting at the instruction of a medical doctor. Never give anything by mouth to an unconscious person.

5. Fire-Fighting Measures

Suitable extinguishing media Product is a fire-extinguishing agent. Carbon Monoxide and Carbon dioxide, Hydrogen Fluoride. Toxic vapours, gases or particulates. Thermal decomposition of usage concentrations does not present a hazard.

Hazardous decomposition

Fire-Fighting procedure Not Applicable

6. Accidental Release Measures

Personal precautions Observe precautions from other sections.

Methods for cleaning up Ventilate area. Contain spill. Cover with absorbent material. Collect spilled material.

Clean up residue water. Place in a closed container

7. Handling and Storage

Precautions for safe storage

Store away from areas where product may come into contact with food or pharmaceuticals. Store at temperatures below 49 C. Store at temperatures above 0 C. Keep container closed when not in use. Store out of direct sunlight.

Incompatible materials / conditions

Store away from heat. Store out of direct sunlight.

Ventilation

Keep container in a well-ventilated area.

Explosion prevention

Non-flammable

Precautions for safe handling

Keep container tightly closed when not in use. No smoking: Smoking while using this product can result in contamination of the tobacco and / or smoke and lead to the formation of the hazardous decomposition products mentioned in section 5 of this MSDS.

8. Exposure Controls / Personal Protection

Eye protection

Avoid eye contact with vapour, spray, or mist. Wear vented goggles.

Hand protection

Wear appropriate gloves when handling this material. A pair of gloves made from the following material (s) are recommended: Butyl rubber.

Skin protection

Avoid skin contact.

Respiratory protection

Avoid inhalation of airborne material. Select one of the following respirators based on airborne concentration of contaminants and in accordance with national regulations: Half-mask organic vapour respirator with dust / mist prefilter.

Ingestion

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and before eating

Recommended ventilation

If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapour concentrations below recommended exposure limits and/or control spray or mist.

Exposure limits:

DIETHYLENE GLYCOL BUTYL ETHER (XI; R:36) (112-34-5) CMRG TWA Exposure Limit: 35 ppm
RESIDUAL ORGANIC FLUOROCHEMICALS (---) 3m TWA Exposure Limit: 0.1 mg/m³

9. Physical and Chemical Properties

Appearance and odour

Clear liquid with an amber colour.

pH

Approximately 8.50

Boiling point / boiling range

100.00 degrees C (Initial)

Melting point / melting range

Flash point

Autoflammability

Vapour pressure

Water solubility

Specific gravity

Vapour density

Volatile organic compounds

Evaporation rate

Viscosity

Percent volatile

Not applicable

None (Setaflash closed cup)

Not Applicable

Approximately 17.6 mmhg Calc. @ 20 C

Miscible

Approximately 1.01 Water=1

Approximately 0.74 Air=1 calculated at room temperature.

177 gms/litre SCAQMD calc. @ 20C

Less than 1.00 BuAc=1

Not determined

97 %

10. Stability and Reactivity

Materials to avoid

Hazardous decomposition

Not Applicable

Stable. Hazardous polymerisation will not occur.

11. Toxicological Information

Effects from eye contact

Moderate eye irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

Effects from skin contact

Mild skin irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

Effects from inhalation

Single overexposure, above recommended guidelines, may cause: central nervous system depression: signs/symptoms can include headache, dizziness, drowsiness, inco-ordination, slowed reaction time, slurred speech, giddiness and unconsciousness. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Effects from ingestion

Animal studies conducted on organic fluorochemicals which are present in this product indicate effects including liver disturbances, weight loss, loss of appetite, lethargy, and neurological, pancreatic, adrenal and hematologic effects. There are no known human effects from anticipated exposure to these organic fluorochemicals when used as intended and instructed. Ingestion may cause: Aspiration Pneumonitis (inflammation of the lungs after inhalation of vomit): signs/symptoms can include coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

Other effects and information

A 3M product toxicity summary sheet is available. This product contains one or more organic fluorochemicals that have the potential to be absorbed and remain in the body for long periods of time, either as the parent molecule or as metabolites, and may accumulate with repeated exposures. There are no known human health effects from anticipated exposure to these fluorochemicals when used as intended and instructed. Effects from anticipated exposure to these organic fluorochemicals when used as intended and instructed. The presence of organic fluorochemicals in the blood of the general population and subpopulations, such as workers, has been published dating back to the 1970's. 3M's epidemiological study of its own workers indicates no adverse effects.

12. Ecological Information**Persistence/biodegradability**

This product contains one or more organic fluorochemicals that have the potential to resist degradation and persist in the environment.

Other effects and information

COD=0.42 g/g; BOD5=0.21 g/g.
BOD20=0.42 g/g

13. Disposal Considerations

Special Instructions

Slowly discharge spent solutions and small quantities (less than 5 gal. /19l) to a wastewater treatment system. Reduce discharge rate if foaming occurs. Large quantities may adversely affect biological wastewater treatment systems. Incinerate large quantities in an industrial or commercial incinerator. Combustion products will include hydrogen fluoride. Since regulations vary, consult applicable regulations or authorities before disposal.

14. Transport Information

UN Number

Not restricted for transportation

UK Road/Sea Freight (IMO) Classification

Substance identification number

Not Applicable

Class

Not Applicable

Packing group

Not Applicable

Proper shipping name

Not Applicable

CDG-road (if applicable)

Not Applicable

ADR/RID Classification

Class

Not Applicable

Item number

Not Applicable

ICAO/IATA Classification

Class

Not Applicable

Sub-Risk

Not Applicable

Packing group

Not Applicable

Proper shipping name

Not Applicable

15. Regulatory Information

Precautionary Label Information

Symbol (s)

None

Risk phrases

May cause eye irritation

Safety phrases

Avoid eye contact, prolonged skin contact and prolonged breathing of vapour. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash with soap and water. If swallowed, drink two glasses of water and immediately call a medical doctor.

16. Other Information

Regulatory information

The following UK regulations as amended may affect the product as supplied:
The chemicals (hazard information and packaging) regulations 1994. The dangerous substances (conveyance by road in road tankers tank containers/regulations 1992). The carriage of dangerous goods by road and rail (classification, packaging and labelling) regulations 1994. The petroleum (consolidation) act 1928. The control of substances hazardous to health regulations

Reissue date/reason for reissue	1994. The control of pollution (special waste) regulations 1980. The environmental protection act 1990. The health and safety at work act 1974.
Intended use of product	Updated ingredients, first aid, handling and storage, exposure and toxicological information sections. Fire fighting agent. Intended for use on class A and class B fires.
Limitations on use of product: For industrial use only	The information on this data sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage, or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this data sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.