ANSUL®

Foam Concentrates and Hardware

Municipal Solutions

Johnson Controls

About ANSUL® Products

ANSUL® products have served the global firefighting industry for over 75 years with high-quality, field-proven products, expert technical service, innovative R&D, and customized solutions for challenging fire hazards. The ANSUL® portfolio includes firefighting foam concentrates and annual testing service, dry chemicals, foam system hardware, and emergency fire response equipment.

Foam Concentrates and Dry Chemicals

The ANSUL® foam concentrate product line is formulated and 3rd-party tested to meet a wide range of firefighting challenges, including special hazards in the municipal, industrial, marine, aviation, mining, petrochemical, and transportation industries. Our foam concentrates are produced in state-of-the-art manufacturing facilities and are subject to stringent quality controls, from incoming raw materials inspection to finished product testing. The ANSUL® product line includes Class A wetting agents, AFFF, AR-AFFF, fluoroprotein, high-expansion, vapor suppression and training foam concentrates.

Periodic concentrate testing is required to check physical properties and fire suppression performance. Accordingly, Johnson Controls Foam Analytical Services offers concentrate sample analysis for a nominal fee as an integral part of ANSUL® customer support.

Class A

SILV-EX and ANSUL-A Class A foam concentrates are a mixture of foaming and wetting agents used in a variety of firefighting applications. When proportioned with water, Class A concentrates reduce the surface tension of water, allowing greater penetration of the foam into most Class A fuels. ANSUL® Class A foams cling to surfaces such as charred wood with minimal run off, enhancing fire suppression and reducing water usage. ANSUL® Class A concentrates are effective in fighting many deep-seated Class A fires, such as paper, tires, and wooden structures, as well as wildland.

AFFF

ANSULITE Aqueous Film-Forming Foam (AFFF) Concentrates combine fluoro- and hydrocarbon-surfactant technologies to provide fire and vapor suppression for Class B hydrocarbon fuel fires. AFFF foam solutions utilize three suppression mechanisms for rapid fire knockdown and burnback resistance: 1) The foam blanket blocks oxygen supply to the fuel. 2) Liquid drains from the foam blanket and forms an aqueous film that suppresses fuel vapor and seals the fuel surface. 3) The water content of the foam solution produces a cooling effect for additional fire suppression.

AR-AFFF

ANSULITE Alcohol Resistant Aqueous Film-Forming Foam (AR-AFFF) Concentrates combine a water soluble polymer (polysaccharide) with AFFF surfactant technology to provide fire and vapor suppression for both Class B polar solvent as well as hydrocarbon fuel fires. AR-AFFF foam solutions create a foam blanket with cooling and oxygen-blocking fire suppression mechanisms similar to AFFF. In addition, when liquid drains from the foam blanket it forms either an aqueous film on a hydrocarbon fire, or a polymeric membrane on a polar solvent fire to suppress the vapor and seal the fuel surface.

Fluoroprotein

ANSUL® Fluoroprotein Foam Concentrates combine hydrolyzed protein with fluorochemical surfactants, foam stabilizers (metal salts), bactericide, corrosion inhibitors, freeze point depressants and solvents to provide superior fire and vapor suppression for Class B hydrocarbon fuel fires. Aspirated ANSUL® fluoroprotein foam offers a robust, stable foam blanket which enhances burnback resistance.

High-Expansion

JET-X High-Expansion Foam Concentrates are flexible firefighting agents used in fighting Class A, Class B, and LNG fires both indoors and outdoors. Expansion ratios from 50:1 up to 1000:1 make them suitable for a variety of applications including aircraft hangars, flammable liquid storage areas, and LNG facilities.

Vapor Suppression

TARGET-7 Vapor Suppression Agent provides for a single application to suppress dangerous vapor release from a chemical spill while also pH neutralizing the spilled material. When mixed with the appropriate neutralizing agent, the concentrate may be used for chlorine dioxide, oleum, chlorosulfonic acids, sulfur trioxide, liquid ammonia, and other fuming acid spills.

Training Foam

ANSUL® Training Foam Concentrates are intended to simulate AFFF (Aqueous Film-Forming Foam) concentrates for training (non-firefighting) purposes. These concentrates may be correctly proportioned over a range of dilutions with most conventional, properly calibrated, proportioning equipment and may be applied in conjunction with siliconized dry chemical agents.

Dry Chemical

ANSUL® Purple-K dry chemical delivers effective, consistent firefighting performance for Class B and Class C fires. Purple-K firefighting dry chemical is compatible with most foam concentrates for twin-agent application.

Foam Concentrate Selection Guide

ANSUL® Product			Applications											Approvals, Listings & Standards															
			Municipal Application / Fuel Type					Industrial Application Type / Fuel Type				Fixed System Fuel Type		UL		ULC		FM	US DOD Mil-Spec	USDA / USFS	EN-1568:2008				ICAO Level		IMO 1312
Type	Description / Concentration	ID	Hydrocarbon	Polar	Structure	Wildland	ARFF	Aviation	Marine	Hydrocarbon	Polar	Hydrocarbon	Polar	UL-162	UL-139	S564	S560	5130	MIL-F-24385F	Spec 307a	Part 1	Part 2	Part 3	Part 4	B	C	Med B/D
AR-AFFF	1%x1% Freeze-Protected	A111-FP18	x	x						x	x	x	x	x		x					x		x	x			
	1%x3%	A137	x	x	x		x			x	x	x	x	x		x					x		x	x			
	1%x3% Freeze-Protected	A137-FP18	x	x	x		x			x	x	x	x	x		x											
	3%x3%	A335	x	x	x		x			x		x	x	x		x					x		x	x			
	3%x3% Low Viscosity	A334-LV	x	x	x		x			x	x	x	x	x		x		x					x	x			
	3%x3% Freeze-Protected	A337-FP13	x	x	x		x	x	x	x	x	x	x								x	x	x	x	x		x
	3%x6%	A364	x	x	x					x	x	x	x	x		x											
AFFF	1%	AFC1B	x		x					x		x		x		x											
	1% Freeze-Protected	AFC1B-FP29	x		x			x		x		x		x		x											
		AFC1M-FP15	x		x			x	x	x		x									x		x		x		x
	3%	AFC3B	x		x					x		x		x		x		x									
		AFC-3MS	x		x		x	x		x		x		x		x			x								
		AFC-3DC	x		x		x	x		x		x					x										
		AFC3IB2	x		x		x	x		x		x													x		
		AFC3IC1	x		x		x	x		x		x		x		x										x	
	3% Freeze-Protected	AFC3B-FP29	x		x			x		x		x		x		x									x		
		AFC3M-FP17	x		x			x	x			x													x		x
	6%	AFC6B	x		x					x		x		x		x											
		AFC-6MS	x		x		x	x		x		x		x		x			x								
		AFC-6DC	x		x		x	x		x		x					x										
		AFC6IB2	x		x			x				x													x		
		AFC6IC1	x		x		x	x		x		x		x		x										x	
Class A	0.1-1%	SILV-EX PLUS			x	x														x							
	0.1-1% CAFS	ANSUL-A			x	x																					
High-Expansion	2% Fresh Water	JET-X 2%	x		x			x		x		x			x			x				x					
	2 ¾%	JET-X 2 ¾%	x		x			x		x		x			x												
Fluoroprotein	3%	AFP3B	x		x				x	x		x		x		x					x		x				x
	6%	AFP6B	x		x					x		x		x		x					x		x				
	3%x3%	AFPAR331-FP15	x	x	x			x	x	x	x	x	x								x		x	x	x		x
Vapor Suppression		TARGET-7	For Vapor Mitigation and pH Neutralization - Not Intended for Firefighting Application																								
Training	Training Foam	AFCTF1	For Training Purposes Only - Not Intended for Actual Firefighting Application																								

Approvals and listings may be confirmed via respective 3rd party approval website and/or by contacting ANSUL® technical service support.

Foam Equipment

ANSUL® portable firefighting equipment offers the knockdown capacity needed for a wide array of challenges – from fuel spills at tank farms to aviation emergency response. With a wide variety of nozzles, eductors, generators, foam carts and trailers, ANSUL® foam equipment provides durable and targeted foam dispersal and application.

Handline Nozzles

ANSUL® low-, medium-, and dual-expansion handline nozzles provide a wide range of flexible flow-control options. Applicable for use with AR-AFFF, AFFF, High-Expansion, Fluoroprotein and Class A foam concentrates; these handline nozzles provide excellent foam expansion for quick fire knockdown and suppression. The nozzles are constructed of stainless steel with a tough polyurethane handle, providing optimum protection against corrosion.

KR-S2 Low-Expansion Nozzle

KR-S/M4 Dual-Expansion Nozzle

KR-M4 Medium-Expansion Nozzle

Eductors

ANSUL® in-line eductors provide a cost-effective method for metering foam concentrate into a water stream. Constructed of corrosion-resistant brass, these eductors enable variable metering at 0%, .5%, 1.0%, 3.0% and 6.0%. The ANSUL® in-line eductor system includes the metering valve and an 8-foot pickup-hose assembly.

Z-2 Eductor

Portable Generator

ANSUL® portable high-expansion foam generators are compact, lightweight and water-powered so no electrical power is required, making them ideal for use on the fire ground. CE marked, ANSUL® portable high-expansion foam generators are flexible tools for firefighting in confined spaces or inaccessible areas such as basements, ship-board applications, or mines.

JET-X-PFG-7 Portable Generator

Foam Mobilcart

The ANSUL® Foam Mobilcart is designed to provide mobile firefighting foam capability for various hazardous areas where flammable liquids are present. The Mobilcart is a highly maneuverable wheeled unit consisting of a 36 gal (136 L) polyethylene tank with two built-in hose storage locations, an eductor with metering valve, and two lengths of fire hose with a choice of foam nozzles.

Foam Mobilcart

Foam Trailers

ANSUL® foam trailers boast rugged construction and provide mobile fire protection for flammable liquid hazards such as those found in refineries and associated tank farms, chemical processing plants, truck and rail car unloading facilities, and marine terminals. The master foam and dual foam tote trailers carry standard large capacity totes with 265 gal (1003 L) of foam concentrate, fed through a pre-piped monitor and nozzle.

Master Foam Tote Trailer

About Johnson Controls' Fire Suppression Products

Our fire suppression solutions deliver an unmatched range of suppression systems, extinguishing agents, fire sprinklers and valves, design software, piping products, fittings, firefighting equipment and services that help our customers save lives and protect property. We leverage our global scale and deep expertise to drive innovation, advance safety and solve the unique challenges of customers around the world. Our global line of firefighting foam concentrates are developed and tested at our Research, Development and Engineering Center of Excellence in Marinette, WI, USA (pictured below). With an expansive global distribution network, our foam and hardware manufacturing facilities include Marinette, WI and Port Arthur, TX, USA; Great Yarmouth, NR, UK; and Cologno Al Serio (BG) IT.

For more information, contact your ANSUL® territory manager or visit www.ANSUL.com.

 Form No. F-2018257-00