



Настоящим письмом TOO «Quick Aviation Solution Logistic» приветствует Вас и желает процветания вашему бизнесу!

TOO «Quick Aviation Solution Logistic» совместно с компанией «Gongyi Shenlong Machinery Equipment Co. Ltd», предлагает Вам рассмотреть поставку:

1. SAE AMS1428 Type IV - противообледенительная жидкость для воздушных судов в форме неньютоновской жидкости. Тип со смесью пропиленгликоля и этиленгликоля, с функцией защиты от обледенения для удаления снега, льда, инея и других форм замерзших осадков с поверхностей самолета. Технические характеристики см. в таблице №1.

Таблица №1.

Physical Properties		
Appearance	Clear Green colored liquid	
Flash Point	> 100°C	
Specific Gravity @ 20°C	1.080±0.015	
pH	7.8 ±0.5	
Refractive Index @ 20°C	1.3906± 0.0015	
Freezing Point	-43±3°C (Neat,100%)	
Viscosity @ 0.3 rpm, 0°C;		
- Sales Specification (LV31#)	27000~42000mPa.s	
- Lowest Viscosity Tested For Holdover Time (LV34#)	24800mPa.s	
- Highest Viscosity Tested For Aerodynamic Acceptance (LV31#)	43700mPa.s	
Performance Properties		
Lowest Operational Use Temperature (LOUT)	Neat	-29°C

2. SAE AMS 1424 Type I – предназначена для удаления снега, льда, инея и других видов льдообразования с поверхности воздушного судна, а также для защиты обледенения воздушного судна после удаления льдообразований. Технические характеристики см. в приложении 1. Исследования по данному товару показаны в приложении 2 и 3.

Продукция имеет сертификацию FAA (Федеральное управление гражданской авиации США) и СААС (Гражданской Авиации Китая):

- SAE AMS1428 Type IV – см. приложение 4;
- SAE AMS 1424 Type I – см. приложение 5.

Данная продукция используется такими известным авиакомпаниями как: United Airlines, American Airlines, KVM, Lufthansa, China Southern Airlines.

Приложение 1.

Newave FCY-1Bio⁺----- Table of Concentration /Refractive Index/ Freezing Point /LOUT Values

Concentration (%Volume)	RI(+20°C) (±0.001)	Freezing Point (°C)	LOUT (°C)	Concentration (%Volume)	RI(+20°C) (±0.001)	Freezing Point (°C)	LOUT (°C)
10%	1.342	-3.8		43%	1.370	-21.1	-11
11%	1.342	-4.2		44%	1.371	-22.1	-12
12%	1.343	-4.5		45%	1.372	-23.0	-13
13%	1.344	-4.8		46%	1.373	-24.0	-14
14%	1.345	-5.2		47%	1.374	-25.0	-15
15%	1.346	-5.5		48%	1.375	-26.0	-16
16%	1.347	-5.9		49%	1.376	-27.0	-17
17%	1.348	-6.2		50%	1.376	-28.0	-18
18%	1.348	-6.6		51%	1.377	-29.0	-19
19%	1.349	-7.0		52%	1.378	-29.9	-19
20%	1.350	-7.4		53%	1.379	-30.8	-20
21%	1.351	-7.9		54%	1.380	-31.8	-21
22%	1.352	-8.4		55%	1.381	-32.7	-22
23%	1.353	-8.9		56%	1.382	-33.7	-23
24%	1.354	-9.4		57%	1.382	-34.7	-24
25%	1.355	-10.0		58%	1.383	-35.8	-25
26%	1.356	-10.5	0	59%	1.384	-37.0	-27
27%	1.356	-11.1	-1	60%	1.385	-38.2	-28
28%	1.357	-11.7	-1	61%	1.385	-39.6	-29
29%	1.358	-12.1	-2	62%	1.386	-41.1	-31
30%	1.359	-12.8	-2	63%	1.387	-42.6	-32
31%	1.360	-13.4	-3	64%	1.388	-44.1	-34
32%	1.361	-13.9	-3	65%	1.389	-45.8	-35
33%	1.362	-14.4	-4	66%	1.389	-47.4	-37
34%	1.363	-14.9	-4	67%	1.390	-49.2	-39
35%	1.363	-15.5	-5	68%	1.391	-50.8	-40
36%	1.364	-16.0	-6	69%	1.392	-52.4	-40
37%	1.365	-16.6	-6	70%	1.393	-54.0	-40
38%	1.366	-17.2	-7	71%	1.393	-55.5	-40
39%	1.367	-17.9	-7	72%	1.394	-56.9	-40
40%	1.368	-18.6	-8	73%	1.395	-58.3	-40
41%	1.369	-19.4	-9	74%	1.396	-59.6	-40
42%	1.369	-20.3	-10	75%	1.397	<-60.0	-40

Note: 1、According SAE AMS1424K, the bias of determined Freezing Point value may within ± 3 °C ,so The bias of LOUT(lowest operational use temperature) value may have ± 3 °C.

2、Diluted solution of concentration lower than 75% is recommended.

**TABLE 51 (CONT'D):
TYPE I FLUIDS TESTED FOR ANTI-ICING PERFORMANCE AND AERODYNAMIC ACCEPTANCE**
(see cautions and notes on pages 76 and 77)

Fluid Name	Type of Glycol ¹	Expiry ² (y-m-d)	Dilution ^{4,5} (fluid/water)	Lowest Operational Use Temperature ³					
				low speed aerodynamic test ⁶		middle speed aerodynamic test ⁶		high speed aerodynamic test ⁶	
				°C	°F	°C	°F	°C	°F
Newave Aerochemical Co. Ltd.									
FCY-1A	EG	23-06-04 ¹³	75/25	-40	-40	Not tested ¹¹	-40	-40	
FCY-1Bio+	EG	24-07-28	75/25	Not tested ¹¹		Not tested ¹¹	-40.5	-41	
ROMCHIM PROTECT SRL									
ADD-PROTECT NG Type I	EG	26-06-01	60/40	-22	-8	Not tested ¹¹	-22	-8	
ADD-PROTECT Type I	PG	27-06-01	70/30	-25.5	-14	Not tested ¹¹	-31	-24	
Shaanxi Cleanway Aviation Chemical Co., Ltd									
Cleansurface I	EG	25-06-07	75/25	Not tested ¹¹		Not tested ¹¹	-40.5	-41	
Cleansurface I-BIO	EG	22-05-02 ⁹	75/25	Not tested ¹¹		Not tested ¹¹	-37	-35	
Topan LLC									
TOPAN TYPE I	EG	24-07-13	75/25	-35.5	-32	Not tested ¹¹	-42	-44	
Xinjiang Zhongtian Liyang Aviation Newmaterial Technology Co., Ltd. (Formerly Xinjiang Zhongtian Liyang Chemical Technology Co., Ltd)									
Clearice-I	EG	23-10-24	60/40	Not tested ¹¹		Not tested ¹¹	-30	-22	
Clearice-IB	EG	24-08-04	75/25	Not tested ¹¹		Not tested ¹¹	-43.5	-46	

Приложение 3.

SAE AMS1424 Type I Qualified Fluids - Continued

Company Name	Fluid Name	Type of Fluid	Type of Glycol	Qualified until (yyyy-mm-dd)		
				Aerodynamic (paragraph 3.5.3)		Anti-icing Performance (paragraph 3.5.2)
				High ramp	Low ramp	
Crvotech Deicing Technology	Polar Plus®	AMS1424/1	PG	2020-01-13	2020-01-13	2020-01-13
	Polar Plus® LT	AMS1424/1	PG	2024-01-24	2024-02-07	2024-01-21
	Polar Plus® LT (80)	AMS1424/1	PG	2024-06-25	2024-07-23	2024-06-15
Dow Chemical Company	UCAR™ ADF Concentrate	AMS1424/1	EG	2027-06-01	2027-06-01	2027-06-01
	UCAR™ ADF XL54	AMS1424/1	EG	Refer to primary site qualification of UCAR™ ADF Concentrate		
	UCAR™ PG ADF Concentrate	AMS1424/1	PG	2027-06-01	2023-05-29	2027-06-01
	UCAR™ PG ADF Dilute 55/45	AMS1424/1	PG	Refer to primary site qualification of UCAR™ PG ADF Concentrate		
Gansu xiexin huineng Science and technology development Co.,Ltd.	XHN-1	AMS1424/1	PG DEG	2019-10-04	-	2019-10-13
Heilongjiang Hangjie Aero-chemical Technology Co. Ltd.	HJF-1	AMS1424/1	EG	2021-07-03	-	2021-06-14
HOC Industries	SafeTemp® ES Plus	AMS1424/1	PG	2024-07-02	2024-08-27	2024-06-30
Inland Technologies Inc.	DuraGly-E Type I ADF Concentrate	AMS1424/1	EG	2023-02-20	2023-04-24	2023-02-08
	Inland ADF Concentrate ⁽²⁾ (Multiple Location)	AMS1424/1	EG	Qualified from 2015-09-04	Qualified from 2017-03-23	Qualified from 2015-09-04
	SafeTemp® ES Plus ⁽¹⁾ (Multiple Location)	AMS1424/1	PG	Qualified from 2017-11-20	Qualified from 2017-11-20	Qualified from 2017-11-20
JSC RCP NORDIX	DEFROST EG 88.1 ⁽³⁾	AMS1424/1	EG	2025-04-13	2025-05-17	2025-05-17
	DEFROST PG 1	AMS1424/1	PG	2023-11-28	2023-12-17	2023-11-21
Kilfrostop Limited	Kilfrostop DF Plus	AMS1424/1	PG	2027-06-01	2023-07-18	2023-06-18
	Kilfrostop DF Plus (80)	AMS1424/1	PG	2024-07-14	2024-07-27	2024-07-22
	Kilfrostop DF Plus (88)	AMS1424/1	PG	2023-06-19	2023-07-18	2023-06-05
	Kilfrostop DF ^{Sustain}	AMS1424/1	NGC	2019-08-06	2019-08-12	2019-09-02
	Kilfrostop Ice Clear I	AMS1424/1	PG	2027-06-01	2027-06-01	2023-04-20
LNT Solutions	LNT E188	AMS1424/1	EG	2025-08-13	2025-08-23	2025-09-01
	LNT P180	AMS1424/1	PG	2026-11-10	2026-12-01	2026-11-10
MKS DEVO KIMYA SANAYI TIC AS.	COREICEPHOB TYPE I	AMS1424/1	PG	2026-06-01	-	2026-06-01
Newave Aerochemical Co. Ltd.	FCY-1A	AMS1424/1	EG	2027-06-01	2023-06-04	2027-06-01
	FCY-1Bio*	AMS1424/1	EG	2025-02-25	-	2024-07-28
ROMCHIM PROTECT SRL	ADD-PROTECT Type I	AMS1424/1	PG	2027-06-01	2027-06-01	2027-06-01
	ADD-PROTECT NG Type I	AMS1424/1	EG	2026-06-01	2026-06-01	2026-06-01
Shaanxi Cleanway Aviation Chemical Co., Ltd	Cleansurface I	AMS1424/1	EG	2025-06-07	-	2025-06-09
	Cleansurface I-BIO	AMS1424/1	EG	2022-05-02	-	2022-05-03
Xinjiang Zhongtian Liyang Chemical Technology Co.,Ltd	Clearice-I	AMS1424/1	EG	2023-10-30	-	2023-10-24
	Clearice-IB	AMS1424/1	EG	2024-09-19	-	2024-08-04

⁽¹⁾ : Refer to preproduction qualification of SafeTemp® ES Plus submitted by HOC Industries.

⁽²⁾ : DOW UCAR™ ADF Concentrate, sold under the product name Inland ADF Concentrate.

⁽³⁾ : Fluid tested in HSR at -40°C and above, however this fluid will be tested below -40°C as soon as the new secure procedure for using nitrogen is established at AMIL.

NOTE:

* : These fluids are qualified according to the tests shown in the table. Other qualification tests, such as fluid stability, toxicity and materials compatibility, are equally required and should be obtained from the fluid manufacturer.

中国民用航空局



民用航空用化学产品设计 / 生产批准函项目单

编号: HH0003-030

本项目单是《民用航空用化学产品设计/生产批准函》HH0003 的一部分

产品名称: 飞机除冰防冰液 (SAE TYPE IV)

产品型号: FCY-EGIV

生产地址: 四川省成都市双流区西航港开发区文星镇腾飞路 765 号

产品使用范围和限制

该产品性能符合 SAE AMS 1428K 的技术要求, 可根据飞机维护手册选用, 并按照经批准的产品使用说明书 (编号: Q/NW2851, 版本: A, 以及后续经局方批准的版本) 用于飞机除防冰作业。

局长授权

批准人:

职务: 司长

部门: 民航局航空器适航审定司

日期: 2023 年 03 月 21 日

有效期: 2023 年 03 月 21 日至 2025 年 03 月 20 日

CAAC 表-53-112-2019



民用航空用化学产品设计 / 生产批准函项目单

编号: HH0003-012

本项目单是《民用航空用化学产品设计/生产批准函》HH0003 的一部分

产品名称: 生物基飞机除冰防冰液 (SAE TYPE I)

产品型号: FCY-1 Bio+

生产地址: 四川省成都市双流区西航港开发区文星镇腾飞路 765 号
江苏省连云港市灌云县经济开发区纬二路南侧

产品使用范围和限制

该产品符合 SAE AMS 1424R (颜色除外) 的技术要求, 可根据飞机维护手册选用, 并按照批准的产品使用说明书 (文件编号: Q/NW 2841, 版本: E, 以及后续经局方批准的版本) 用于冬季冰、雪和霜等气候条件下的飞机表面的除冰和防冰。

局长授权

批准人: 

职务: 司长

部门: 民航局航空器适航审定司

日期: 2022 年 09 月 08 日

有效期: 至 2024 年 09 月 07 日

CAAC 表-53-112-2019