AeroWash HD Information Pack

# AEROWASH HD

Available from Frasers Aerospace 1 St James Rd, Brentwood, Essex, CM14 4LH www.frasersaerospace.com





# **Technical Datasheet**



Part Number: 1000 Lt IBC - AWHD1000, 20 Lt - AWD25

Pack: 20 Lt & 1000 Lt IBC

Manufacturer: Frasers Aerospace

Approvals: Boeing D6-17487, AMS 1526, AMS 1530

HS Commodity Code: 3402909200

### **Product Description.**

AeroWash HD is a hard surface cleaner for cleaning the exterior surfaces of aircraft. Ideal for removing stubborn oil and dirt typically found on the underbelly of aircraft and on the engine cowling.

### Directions for use.

Use as supplied. Can be diluted up to 50% with demineralised water.

### Safety & storage.

May produce an allergic reaction. Avoid breathing product spray. The material should be handled under good housekeeping practices. Wash hands after use. Product is, biodegradable and when used as directed is safe to use. For best results, store product in a cool, dry place to preserve enzyme stability. Keep away from children.



Version Number:3

Revision:1

Date of Issue: 12/10/21

SMI, Inc. 12219 SW 131 Avenue Miami, Florida 33186-6401 USA		Phone: Fax:	(305) 971-7047 (305) 971-7048
Attn:	Kevin Bishop	Date:	01-Nov-2019
	Frasers Aerospace 1 St James Road Essex CM14 4LH United Kingdomers Aerospace Document Library ERASERS ERASERS	SMI/REF:	1909-018
Product:			
Dilution:	As received	Page 1 of 4	4

### British Aerospace AIRBUS AIMS09-00-002 (Issue 3, July 2011) EVALUATION OF MAINTENANCE MATERIALS Exterior and General Cleaners

5.3.1	Sandwich Corrosion Test	Conforms
5.3.2	Total Immersion Test	Conforms
5.3.3	Hydrogen Embrittlement Test	Conforms
5.3.4	Paint Softening Test	Conforms
5.3.5	Acrylic Crazing Test	Conforms
5.3.6	Polycarbonate Crazing Test	Conforms

Respectfully submitted,

Patricia D. Viani, SMI Inc.

SCIENTIFIC MATERIAL INTERNATIONAL www.smiinc.com

Client: Product: Dilution:	Frasers Aerospace <b>AEROWASH HD</b> As received	Date: SMI/REF:	01-Nov-2019 1909-018
AIMS 09-00-0	002 (Issue 3)	Page 2 of 4	

5.3.1 <u>Sandwich Corrosion Test</u>: Testing shall be in accordance with ASTM-F-1110 using: - aluminium alloy 2024 T3 clad against

- anodised aluminium alloy 2024 T3 unclad and
- anodised aluminium alloy 7075 T6 unclad.

After the test the aluminium alloy specimens shall show a rating less than or equal to 1 or no worse than a control sample prepared with distilled water.

	Aluminium alloy 2024 T3 clad against Anodised alum. 2024 T3 unclad	Aluminium alloy 2024 T3 clad against Anodised alum. 7075 T6 unclad
AS RECEIVED	2024 T3 clad: 1 2024 T3 unclad anodised: 1	2024 T3 clad: 1 7075 T6 unclad anodised: 1
CONTROL	2024 T3 clad: 1 2024 T3 unclad anodised: 1	2024 T3 clad: 1 7075 T6 unclad anodised: 1

Result\_\_\_\_ Conforms

5.3.2 <u>Total Immersion Test</u>: Testing shall be in accordance with ASTM-F-483 using:

aluminium alloys as per 5.3.1. above

low carbon steel, e.g. AMS 5045, XC18 or equivalent

cadmium plated steel, e.g. AMS 5045, XC18 (or equivalent), plated in accordance with AMS QQ-P-416 Type I Class 1 (or equivalent)

The immersion time shall be  $(24 \pm 0.5)$  h. The immersion temperature shall be  $(23 \pm 2)^{\circ}$ C.

- No significant visual change shall be evident. The max. permitted weight changes are as follows: Aluminum alloy = **0.02 mg/cm**<sup>2</sup> maximum.
  - Low carbon steel = 0.8 mg/cm<sup>2</sup> maximum
  - Cadmium plated steel = 0.3 mg/cm<sup>2</sup> maximum

ALLOY	WEIGHT CHANGE
	AS RECEIVED
Aluminum alloy 2024-T3 clad	< 0.01 mg/cm²/24 hrs
Anodized aluminum alloy 2024-T3 unclad	0.01 mg/cm²/24 hrs
Anodized aluminum alloy 7075-T6 unclad	0.01 mg/cm²/24 hrs
Low carbon steel AMS 5045	0.12 mg/cm²/24 hrs
Cadmium plated steel AMS 5045 plated i.a.w. AMS-QQ-P-416 Type I Class 1	0.03 mg/cm²/24 hrs

Result\_\_\_\_Conforms

Client: Product:	Frasers Aerospace AEROWASH HD	Date: SMI/REF:	01-Nov-2019 1909-018
Dilution:	As received		
AIMS 09-00-0	02 (Issue 3)	Page 3 of 4	

5.3.3 <u>Hydrogen Embrittlement Test:</u> The product shall be non-embrittling as determined in accordance with ASTM F 519, using type 1a, 1c, or 2a specimens, cadmium plated in accordance with MIL-STD-870, Class 1, Type I. Type 1a and Type 1c specimens shall be loaded to 45% of the predetermined notch fracture strength and Type 2a specimens loaded to 80% of the yield strength. The entire 2a stressed specimen, or just the notched area of the 1a and 1c stressed specimen, shall be immersed continuously in the solution under test for 150 hours at a temperature between 20-30°C (68-86°F). The maintenance material being tested shall not cause embrittlement of the test specimens.

Specimens: Type 1c, cadmium plated

As received:

Specimen #1: No failures occurred within 150 hours. Specimen #2: No failures occurred within 150 hours. Specimen #3: No failures occurred within 150 hours. Specimen #4: No failures occurred within 150 hours.

Result Conforms

- 5.3.4 <u>Paint Softening Test</u>: Maintenance material compatibility shall be tested with Airbus approved paints and/or customer specific systems. Testing shall consist of three specimens for each of the following combinations. The substrate shall be clad aluminium alloy 2024 suitably pre-treated:
  - Epoxy primer of polyurethane primer with or without polyurethane topcoat (interior paint scheme according to TN A.007.10050 OR epoxy primer to MIL-PRF-23377 Type I with or without polyurethane topcoat to MIL-PRF-85285 Type I or customer
  - specific system).
  - Basic primer plus relevant exterior paint scheme according to TN A.007.10050 OR epoxy primer to MIL-PRF-23377 Type I with polyurethane topcoat to MIL-PRF-85285 Type I OR external paint scheme conforming to AMS 3095 OR customer specific system.

The thickness and drying times of individual coats shall be in accordance with the manufacturer's instruction sheets. Testing shall be in accordance with ISO 1518 "Scratch Test" using the following test sequence: one hour immersion in the maintenance material at an ambient temperature  $(23 \pm 2)^{\circ}$ C, rinsing with water immediately after the immersion and drying for 1 hour at room temperature. The material shall not soften the paint coat and the Scratch Test shall have 90% of the original value after the immersion.

The agent being tested shall not produce any blistering, discoloration or staining.

Client:	Frasers Aerospace		Date:	01-Nov-2019	
Product:	<b>AEROWASH HD</b>		SMI/REF:	1909-018	
Dilution:	As received				
AIMS 09-00-0	)02 (Issue 3)		Page 4 of 4		_

### 5.3.4 Paint Softening Test:continued

	Doint System		Weight required to produce scratch	
Paint System		Before exposure	After exposure	
	Epoxy Primer without topcoat: Primer: MIL-PRF-23377 Type I, Epoxy, High Solids	Pass*	Pass*	
AS RECEIVED	Epoxy primer with polyurethane topcoat: Primer : MIL-PRF-23377 Type I, Epoxy, High Solids Topcoat: MIL-PRF-85285 Type I, Polyurethane, High solids	Pass*	Pass*	

\* Using a 2,000 gram load (maximum load of the scratch apparatus)

\*Conformance ("Pass") if no scratch occurs using a load equal to or greater than 1,800 grams (90% of 2,000 = 1,800), and there is no evidence of blistering, discoloration or staining.

Result\_\_\_\_\*Conforms

55.3.5 <u>Acrylic Crazing Test</u>: Material confirming to MIL-P-25690 Type C shall be tested in accordance with ASTM-F-484. The maintenance materials shall not craze, crack, stain or discolor the test specimens.

As received: No evidence of craze, crack, stain or discolor.

Result Conforms

5.3.6 <u>Polycarbonate Crazing Test</u>: Material conforming to ASTM-D-3935 or AMS-P-83310 shall be tested in accordance with the method for the determination of stress crazing detailed in ASTM F 484.

Specimens shall be stressed for  $(30 \pm 2)$  minutes to an outer stress of 21MPa (3000 psi) at a temperature of  $(23 \pm 2)^{\circ}$ C.

As received: No evidence of craze, crack, stain or discolor.

Result Conforms

	<b>NC.</b> 131 Avenue da 33186-6401 USA		) 971-7047 ) 971-7048
Attn:	Kevin Bishop Frasers Aerospace 1 St James Boad Essex CM 4 Abort Aerospace Document Library United Kingdom		1-Nov-2019 909-018
Product:	AEROWASH HD (received 02000-2010		
Dilution:	As received	Page 1 of 4	

### **BOEING D6-17487 REVISION T**

Exterior and General Cleaners and Liquid Waxes, Polishes and Polishing Compounds

Sandwich Corrosion Test	Conforms
Acrylic Crazing Test	Conforms
Paint Softening Test	Conforms
Hydrogen Embrittlement Test	Conforms

Respectfully submitted,

Patricia D. Viani, SMI, Inc.

Client:	Frasers Aerospace	Date:	01-Nov-2019
Product:	AEROWASH HD	SMI/REF:	1909-018
Dilution:	As received		
BOEING D6	-17487 REVISION T (Exterior & General)	Page 2 of 4	

<u>Sandwich Corrosion Test:</u> Specimen preparation, testing, and interpretation shall be in accordance with ASTM F1110 using the following materials and with the following exceptions:

- a. Reagents and materials exception:
  - (1). Clad 7075-T6 aluminum alloy in accordance with QQ-A-250/13 (AMS 4049 or AMS-QQ-A-250/13 optional) (2024-T3 Alclad specimens are neither required nor optional.)
  - (2) Bare 7075-T6 aluminum alloy in accordance with QQ-A-250/12 (AMS 4045 or AMS-Q-A-250/12 optional) anodized in accordance with BAC 5019 or MIL-A-8625, Type I.
  - (3) Anodize shall be sealed. (2024-T3 nonclad specimens are neither required nor optional).
  - (4) Distilled or deionized water may be used in place of ASTM F1193, Type IV reagent grade water for control specimens.
  - (5) The filter paper may be Whatman No. 5 or equivalent in place of Whatman GFA glass fiber paper.
- b. Procedure exceptions:
  - (1) The filter paper strips shall be 1 by 3 inches and shall be placed in the center of the sandwiched specimens.
  - (2) Each sandwich specimen shall be held together with waterproof tape, with no more than 1 piece of tape (maximum width 0.75 inch) on each of two opposite edges.
- c. Interpretation of result exceptions:
  - (1) Leaching or lightening of the chromate sealed anodize coating shall not be cause for rejection.
  - (2) Deposits or residues from the material being tested that are not products of corrosion of the test panel surface shall not be cause for rejection.
  - (3) Special procedure for evaluation of fire extinguishing foams and liquids.

Panels with very light darkening or staining, which have no obvious metal attack or pitting, may be swabbed (cotton-tipped swabs or cotton gauze) with a 0.26 mole/liter sulfuric acid solution and re-examined. If the coloration is substantially removed and there is no evidence of metal attack or pitting, the condition shall not be cause for rejection. (The 0.26 mole/liter sulfuric acid solution can be prepared by adding 1.5 cc of concentrated sulfuric acid (SG = 1.84) to 100 cc of distilled or deionized water.

- (4) Panels shall have a rating of 1 (no more than 5 percent of the surface area shall be corroded) or better in accordance with ASTM F 1110. The preferred method of determining the corroded area is by using image analysis. Other means approved by the purchaser may be substituted.
- (5) Any corrosion in excess of that shown by the control group shall be cause for rejection.

Client:	Frasers Aerospace		Date:	01-Nov-2019
Product:	<b>AEROWASH HD</b>		SMI/REF:	1909-018
Dilution:	As received			
<b>BOEING D6-</b>	17487 REVISION T	(Exterior & General)	Page 3 of 4	

Sandwich Corrosion Test: continued

	Bare 7075-T6 (AMS 4045) Anodized per BAC 5019 (Type 3 chromate seal)	Clad 7075-T6 Aluminum (AMS 4049)	
PRODUCT	1	1	
Control	1	1	

Result Conforms

### Acrylic Crazing Test:

The material being tested shall not craze, crack, or etch acrylic test specimens when tested in accordance with ASTM F 484 using Type C (stretched acrylic plastic in accordance with MIL-P-25690) stressed to an outer fiber stress of 4500 psi. PRODUCT: No crazing, cracking, or etching

Result Conforms

### Paint Softening Test Procedure:

- Testing shall be in accordance with ASTM F502 using the following coating a systems.
  - (1)BMS 10-79, Type II primer applied in accordance with BAC5882 plus BMS 10-60, Type II enamel in accordance with BAC5845.
  - (2)BMS 10-79, Type III primer applied in accordance with BAC5882, plus BMS 10-100 coating in accordance with BAC5797.
- b. Three specimens conforming to Section 12a.(1) and three specimens conforming to Section 12a(2) shall be used for each test condition.
- The material being tested shall not produce a decrease in film hardness greater C. than two pencils, or any discoloration or staining.

NOTE: Slight darkening of the BMS 10-100 surface is acceptable. **PRODUCT:** 

Paint system 1: 0 pencil hardness change after 24 hour post-exposure dry time. No discoloration or staining.

Paint system 2: <u>0</u> pencil hardness change after 24 hour post-exposure dry time. No discoloration or staining.

Result Conforms

Client:	Frasers Aerospace	Dat	e: 01-Nov-2019
Product:	AEROWASH HD	SM	I/REF: 1909-018
Dilution:	As received		
BOEING D6	-17487 REVISION T (Exterior	& General) Pag	ge 4 of 4

### Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing shall be in accordance with ASTM F 519 using cadmium plated Type 1a.2, Type 1c, or Type 2a specimens. All requirements of ASTM F519 for specimens, preparation, testing, and reporting shall apply. Type 1a.2 specimens shall meet the requirements of D6-4307.

Specimens: Type 1c, cadmium plated per MIL-STD-870. (45% load, 150 hours, notched immersed for the duration, room temp.)

As received:

- #1: No failure occurred within 150 hours.
- #2: No failure occurred within 150 hours.
- #3: No failure occurred within 150 hours.
- #4: No failure occurred within 150 hours.

Result Conforms

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 7/20/2020 Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

#### Product form Product name Product code

: Mixture : Aerowash HD

: AWHD 20

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

### 1.2.1. Relevant identified uses

Industrial/Professional use spec

: Industrial For professional use only

### 1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

### PRETREAT LTD | CROWN WORKS | ROCHDALE ROAD | TODMORDEN | LANCASHIRE |OL14 6LD TEL: 01422 847671 | E: INFO@PRETREAT.CO.UK | WWW.PRETREAT.CO.UK

### **1.4. Emergency telephone number**

Country	Organisation/Company	Address	Emergency number	Comment
- 5		Dudley Road B18 7QH Birmingham	0344 892 0111	

### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Full to the full statement of the statem	

Full text of H statements : see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP) Hazardous ingredients

: propan-2-ol; isopropyl alcohol; isopropanol

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

: H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P312 - Call a POISON CENTRE or doctor if you feel unwell.
P337+P313 - If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

### No additional information available

### SECTION 3: Composition/information on ingredients

### 3.1. Substances

### Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
propan-2-ol; isopropyl alcohol; isopropanol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0	≥ 20 – < 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	(CAS-No.) 111-76-2 (EC-No.) 203-905-0 (EC Index-No.) 603-014-00-0	≥ 20 – < 30	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of water/ Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label).
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effe	ects, both acute and delayed
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact	<ul> <li>May cause drowsiness or dizziness.</li> <li>Causes skin irritation.</li> <li>Causes serious eye irritation.</li> </ul>
4.3. Indication of any immediate medic	al attention and special treatment needed

No additional information available

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	<ul><li>Foam. Dry powder. Carbon dioxide. Water spray. Sand.</li><li>Do not use a heavy water stream.</li></ul>	
5.2. Special hazards arising from the subs	tance or mixture	
Fire hazard Explosion hazard	<ul><li>Flammable liquid and vapour.</li><li>May form flammable/explosive vapour-air mixture.</li></ul>	
5.3. Advice for firefighters		
Firefighting instructions Protection during firefighting	<ul> <li>Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.</li> <li>Do not enter fire area without proper protective equipment, including respiratory protection.</li> </ul>	

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective e	quipment and emergency procedures	
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.	
6.1.1. For non-emergency personnel		
Emergency procedures	: Evacuate unnecessary personnel.	
6.1.2. For emergency responders		
Protective equipment	<ul> <li>Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapours/spray.</li> </ul>	
Emergency procedures	: Ventilate area.	
6.2. Environmental precautions		

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up	
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other sections	

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Additional hazards when processed Precautions for safe handling Hygiene measures	<ul> <li>Handle empty containers with care because residual vapours are flammable.</li> <li>Wash hands and other exposed areas with mild soap and water before eating, drinking of smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.</li> <li>Wash hands, forearms and face thoroughly after handling.</li> </ul>	or
7.2. Conditions for safe storage, incl	luding any incompatibilities	
Technical measures	<ul> <li>Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.</li> </ul>	
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed.	
Incompatible products	: Strong bases. Strong acids.	
7/20/2020 (Version: 1.0)	EN (English)	3/10

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Incompatible materials

: Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)

United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m³)         123 mg/m³	
WEL TWA (ppm)	25 ppm
WEL STEL (mg/m³)	246 mg/m³
WEL STEL (ppm)	50 ppm

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m³)	999 mg/m³
WEL TWA (ppm)	400 ppm
WEL STEL (mg/m³)	1250 mg/m³
WEL STEL (ppm)	500 ppm

8.2. Exposure controls

### Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:	
Wear protective gloves.	
Eye protection:	
Chemical goggles or safety glasses	

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

### Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties			
9.1. Information on basic p	hysical and chemical propertie	'S	
Physical state	: Liquid		
Colour	: Blue.		
Odour	: mild.		

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: ≈ 0 °C
Freezing point	: No data available
Boiling point	: ≈ 100 °C
Flash point	: > 24 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

**10.2. Chemical stability** 

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

**10.5. Incompatible materials** 

Strong acids. Strong bases.

**10.6. Hazardous decomposition products** 

11.1. Information on toxicological effects

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

### SECTION 11: Toxicological information

: Not classified	
: Not classified	
: Not classified	
	: Not classified : Not classified

propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)	
LD50 oral rat	5045 mg/kg
LD50 dermal rabbit	12800 mg/kg
LC50 inhalation rat (mg/l)	30 mg/l/4h

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitisation Additional information Germ cell mutagenicity Additional information Carcinogenicity Additional information	<ul> <li>Causes skin irritation.</li> <li>Causes serious eye irritation.</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>Based on available data, the classification criteria are not met</li> </ul>
Reproductive toxicity Additional information STOT-single exposure	<ul> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> <li>May cause drowsiness or dizziness.</li> </ul>
STOT-repeated exposure Additional information	<ul> <li>Not classified</li> <li>Based on available data, the classification criteria are not met</li> </ul>
Aspiration hazard Additional information	: Not classified : Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

### **SECTION 12: Ecological information**

12.1. Toxicity			
	Not classified		
(acute) Hazardous to the aquatic environment, long-term : (chronic)	Not classified		
12.2. Persistence and degradability			
Aerowash HD			
Persistence and degradability	Not established.		
propan-2-ol; isopropyl alcohol; isopropanol (	propan-2-ol: isopropyl alcohol: isopropanol (67-63-0)		
Persistence and degradability	Not established.		
12.3. Bioaccumulative potential			
Aerowash HD			
Bioaccumulative potential	Not established.		
propan-2-ol; isopropyl alcohol; isopropanol (67-63-0)			
Bioaccumulative potential	Not established.		
12.4. Mobility in soil			
No additional information available			
12.5. Results of PBT and vPvB assessment			
No additional information available			
12.6. Other adverse effects			
Additional information : /	Avoid release to the environment.		

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 13: Disposal consideration	S
13.1. Waste treatment methods	
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local regional, national and/or international regulation.
Additional information Ecology - waste materials	<ul> <li>Handle empty containers with care because residual vapours are flammable.</li> <li>Avoid release to the environment.</li> </ul>

### **SECTION 14: Transport information**

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1993	UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper shippin	g name	· · · · ·		
FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.	Flammable liquid, n.o.s.	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.
Transport document descr	iption			-
UN 1993 FLAMMABLE LIQUID, N.O.S. (Isopropanol), 3, III, (D/E)	UN 1993 FLAMMABLE LIQUID, N.O.S. (Isopropanol), 3, III	UN 1993 Flammable liquid, n.o.s. (Isopropanol), 3, III	UN 1993 FLAMMABLE LIQUID, N.O.S. (Isopropanol), 3, III	UN 1993 FLAMMABLE LIQUID, N.O.S. (Isopropanol), 3, III
14.3. Transport hazard o	class(es)			
3	3	3	3	3
14.4. Packing group				
III	Ш		III	
14.5. Environmental haz	zards	·		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

**Overland transport** : F1 Classification code (ADR) : 274, 601 Special provisions (ADR) Limited quantities (ADR) : 51 Excepted quantities (ADR) : E1 : P001, IBC03, LP01, R001 Packing instructions (ADR) Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions (ADR) : T4 Portable tank and bulk container special provisions : TP1, TP29 (ADR) Tank code (ADR) : LGBF Vehicle for tank carriage : FL Transport category (ADR) : 3 Special provisions for carriage - Packages (ADR) : V12

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

	• • • •
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	30
	1993
Tunnel restriction code (ADR)	: D/E
EAC code	: •3YE
Transport by sea	
Special provisions (IMDG)	: 223, 274, 955
Limited quantities (IMDG)	: 5L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A
Air transport	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA) CAO max net quantity (IATA)	: 366 : 220L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L
Inland waterway transport	: F1
Classification code (ADN) Special provisions (ADN)	: 274, 601
Limited quantities (ADN)	: 5L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0
Rail transport	
Classification code (RID)	: F1
Special provisions (RID)	: 274, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions	: TP1, TP29
(RID)	
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30
14.7 Transport in bulk according to Approx	Il of Morroel and the IPC (

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

#### Germany

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG) Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)
: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
: None of the components are listed
: None of the components are listed
: None of the components are listed
: None of the components are listed
: None of the components are listed
: Emergency management guidelines for the storage of flammable liquids must be followed
: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information		
Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.	
Other information	: None.	
Full text of H- and EUH-statements:		

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Flam. Liq. 2	Flammable liquids, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis	
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.