

BlazeCut Automatic Fire Suppression System

Supporting Document

Chemical Compatibility

T Series



1 T SERIES SYSTEM CHEMICAL COMPATIBILITY

Below is a list of chemicals that may affect the lifespan of the BlazeCut T Series system. Green indicates chemical compatibility where there should be no impact to the part. The yellow references up to a percentage of solution/compound by mass and the red references the materials that are not compatible in the given solution/compound by mass.

EXPLANATION ON MASS REFERENCE BELOW

Chromic Acid solution (40% by mass @ 23°C) = 40% of Chromic Acid solution and 60% of distilled water at 23°C.

TUBE MATERIAL

BlazeCut's customised plastic formulation

METAL FITTING MATERIAL

Stainless Steel AISI 303

PRESSURE GAUGE MATERIAL

Body: Nickel plated brass

Window: Copolyester

CHEMICAL	TUBE	FITTINGS	GAUGE
ACIDS			
Acetic Acid 5 %	✓	✓	✗
Citric Acid 10 %	✓	✓	✓
Carbolic Acid (Phenol)	✗	✓	!
Lactic Acid 10 %	✓	✓	✗
Hydrochloric Acid 36 %	✗	✗	✓
Nitric Acid 40 %	✗	✓	!
Sulphuric Acid 38 %	✓	!	!
Chromic Acid 40 %	✗	✓	✗
BASES			
Sodium Hydroxide 35 %	✓	✓	!
Ammonium Hydroxide 10 %	✓	✓	!
ALCOHOLS			
Isopropyl Alcohol	✓	✓	?
Methanol (Methyl Alcohol)	✓	✓	✓
Ethanol	✓	✓	✓
HYDROCARBONS			
n-Hexane	✓	✓	?
Toluene	✓	✓	✓
Isooctane	✓	✓	?
KETONES			
Acetone	✓	✓	✓
ETHERS			
Diethyl Ether	✓	✓	?

AUTOMATIC FIRE SUPPRESSION SYSTEMS



CHEMICAL	TUBE	FITTINGS	GUAGE
MINERAL OILS			
Insulating oil	✓	✓	✓
Motor oil	✓	✓	✓
Oleic Acid + Olive oil	✓	✓	!
STANDARD FUELS			
ISO 1817 Liquid 1	✓	?	?
ISO 1817 Liquid 2	✓	?	?
ISO 1817 Liquid 3	✓	?	?
ISO 1817 Liquid 4	✓	?	?
Diesel fuel	✓	✓	✓
Fuel with alcohol	✓	✓	✓
SALT SOLUTIONS			
Sodium Chloride 10 %	✓	✓	!
Sodium Hypochlorite 10 %	✓	!	!
Sodium Carbonate 20 %	✓	✓	!
Zinc Chloride 50 %	✓	✓	!
OTHER			
Ethyl Acetate	✓	✓	!
Hydrogen Peroxide	✓	✓	!
Ethylene Glycol (DOT 4 brake fluid)	✓	✓	!
1 % nonylphenoxy-polyethyleneoxy ethanol in water	✓	?	?
Deionized Water (90 °C)	✓	✓	✓
Water	✓	✓	✓

= OK
 = Limited
 = Not OK
 = Data unavailable

For further information or support, please contact technical@blazecutgroup.com