SAFETY COMPARISON
CHEMATIC 420 VS. ISOPROPANOL

DOBER

	Isopropanol	Chematic 420	Summary
Flammability 	Highly Flammable Flash point: 54°F (12°C) Lower Explosive Limit : 2% in Air	Not Flammable	Chematic 420 is not flammable, eliminating the need for specialized storage, and safer for operator handling
Exposure Limits 	Inhalation Hazard The TLV-TWA is 200ppm for an 8 hour period	No Inhalation Hazard Exposure limits for hazardous components in **concentrated product** (8 hour period): Ethylene glycol monobutyl ether: OSHA PEL (TWA): 50ppm Monoethanolamine: OSHA PEL (TWA): 3ppm	Chematic 420 is a mixture. This data is taken from the concentrated SDS, which reports values for hazardous components as if they make up 100% of the formula. These components make up only a small percentage of the formula and are further diluted before usage. **There are no exposure limits when diluted.**
Toxicity (LD50) 	Tocixity (LD50) data for Isopropanol: 4396 mg/kg (Rat)	Tocixity (LD50) data for hazardous components in **concentrated product:** Ethylene glycol monobutyl ether: 1300 mg/kg (Rat) Monoethanolamine: 1720 mg/kg (Rat) Tetrasodium EDTA: 1658 mg/kg (Rat)	Chematic 420 is a mixture. This data is taken from the concentrated SDS, which reports values for hazardous components as if they make up 100% of the formula. These components make up only a small percentage of the formula and are further diluted before usage. **When used at typical dilutions, hazardous components are below reportable levels**

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Handling & PPE 	Non-corrosive Flammable Inhalation Hazard Protect from skin exposure Mitigated by proper PPE • Flame/static resistant clothing • Safety glasses/face shields • Respirators • Nitrile Gloves	Corrosive in **concentrated** form Protect from skin exposure Mitigated by proper PPE • Long Sleeve/Protective clothing • Safety glasses • Nitrile Gloves	Chematic 420 is only corrosive in the concentrated form. The detergent is **non-corrosive** at typical use dilutions. Respiratory protection is **not required** when using dilute Chematic 420
Storage Conditions 	Must be stored in flammable cabinet with ventilation <u>Standards for IPA Storage</u>: 29 CFR OSHA 1910.106 Flammable Liquids 29 CFR OSHA 1926.152 Flammable Liquid storage NFPA 30 Flammable and Combustible Liquids Code IBC International Building Code <u>Large quantities of stored IPA requires</u>: Class 1, Div 1 classified location 1926.49 Storage room constructed to meet NFPA 251 1969 Air exchanges >6X/hour	Store indoors at room temperature Keep separate from concentrated acids	There are no special equipment or storage requirements for Chematic 420 in either concentrated or dilute form

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Disposal 	Waste material must be disposed of in accordance with national and local regulations No mixing with other waste Usually needs to be recovered or incinerated	Dispose in a safe manner in accordance with local/national regulations Ecology - Avoid release to the environment Aquatic Toxin in **concentrated** form	Chematic 420 typically does not need to be collected or require special disposal. Not an aquatic toxin when diluted
Material Compatibility 	Not compatible with rubber, some plastics and elastomers	May be corrosive to soft metals	Chematic 420 has been tested to be compatabile with many common materials of construction