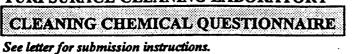


### TURI SURACE CLEANING LABORATORY





Material Safety Data Sheet (MSDS)
MUST Be Attached (and Technical Data Sheet, if available

<del>_</del>				
				want listed in the Directory
- Alu-Kleen				ld organic Acid
Meets Specified Standard		Mil Spec:	FDA:	Other:
Primary Cleaner Classifica				
Acidic Aqueous	□ Semi-Aque		Powder detergent	
□ Neutral Aqueous	□ Terpene			ICFC
☐ Alkaline Aqueous	□ Petroleum (		Microbial	
□ Caustic	□ Organic	□ Blasting	3 0	)ther <u>:                                    </u>
2. Chemical Constituents (	Check all that apply &	specify) Example   E	Builder: <i>Sodium Hydr</i>	oxide 50% (as Concentrate)
Cleaner Containing:	At Least Some Wa	_ •		linimal Water +
□ Builder:	,	onditioner/Sequestering	g/ □ Su	percritical fluid:
Surfactant: Anionic S	Chelating	g agent: Carboulic	acid	
Emulsifier: Emulsifier	Corrosio	on inhibitor/Rust	□ Bla	sting medium:
□ Saponifier:	prohibito	or:	,	
Other: Alcohol	□ Anti-mic	robial:	Ø Otl	ner: Inhibitor for Aluminu
□ Rinse aid/Silicate:	,	<u> </u>	<del></del>	sodium Nitrate
3. Industrial Applications	Number all that apply	Most Used = 1)		SQ. WITT NITE SEE
3 ☑ Aerospace/Military			□ S	emicondoctors
□ Cleanrooms	⊋		·=	eneral Cleaning (floors, etc.)
□ Basic Electronics	□ Optics			faint./Repair (engines, etc.)
□ Medical	□ Painting	□ Printin		ther:
	•		Example  Coating	
<ul><li>4. Contaminant Removal (</li><li>☐ Adhesives</li></ul>	☐ Coatings	Greases	□ Mold releases/	Rust/Scale
	_	□ Inks	Silicones	□ Waxes
☑ Buffing/polishing compounds  ☐ Compounds ☐ Com	☐ Cutting/tapping fluids	Lubricating/	□ Paints	□ Other:
□ Carbon deposits	Fluxes	lapping oils	□ Resins/Rosins	L Other.
•		rapping ons	- Verilla Vorilla	
5. Substrate Compatibility				
10 Aluminum	□ Carbon steel	□ Glass/quartz	□ Rubber	□ Nickel
□ Alloys (Specify):		□ Gold ·	Stainless steel	□ Tin
	□ Copper	□ Plastic (Specify):	□ Steel	□ Other:
□ Brass	☐ Galvinized steel	·	· □ Sterling/silver	
6. Equipment Compatibilit	y (Check all that apply	& specify, if applicab	le) /	
□ Cold Solvent	<b>™</b> Mech	Mechanical Agitation		pray <u>    5-15                               </u>
□ Vapor Degreasing □ Ultraso				Spray psi-rang
☐ Manual Wipe ☐ Media Blasting		a Blasting	□ Other:	
☑ Immersion/Soak	□ Super	rcritical Extract		
7. Recommended Concen	trations: 5-20	Percent Vol	ume (range)	
Recommended Temper	<u> </u>	Dec E (		
8. Important Physical and	110 00	<u> </u>	,	
Maximum theoretic				
GWP:		ce Tension:	ת	ensity: 9.5 165/gal
ODP:	Kb val			ensity: <u>9.5 lbs/ga/</u> Other:
			Y 1	
9. Cost per pound/gallon: Smallest-unit price:  10. Additional pertinent information not found elsewhere on this for			Large-volume price	e:US
III Additional pertinent in	tormation not found eli	sewhere on this form a	OF MADDA.	

# AEATBATEEhnical Data

CORPORATION

BOX 2978, SPRINGFIELD, MA 01102-2978 • TEL: (413) 543-3381 • FAX: (413) 543-2378 Website: http://www.heatbath.com

## **ALU-KLEEN 36**

#### **CHARACTERISTICS:**

Alu-Kleen 36 is a mild slightly acidic liquid cleaner concentrate for aluminum and aluminum alloys. Solutions of Alu-Kleen 36 will remove cutting and corrosion proofing oils, drawing compounds and some buffing compounds. In most cases there is no attack to the base metal.

#### FORM:

Mildly acidic liquid concentrate weighing 9.5 lbs./gallon, shipped in 500 lb. drums

#### **EQUIPMENT:**

Pumps, piping and tanks for Alu-Kleen 36 should be fabricated from stainless steel either Type 304 or Type 316.

#### **OPERATION:**

Concentration:

5 - 20% by volume

Temperature:

140° - 200°F

Time:

1 - 30 minutes (as required)

#### **CONTROL:**

- 1. Pipet a 5 ml. sample into a 300 ml. flask.
- 2. Add about 20 mls. water and 5 6 drops Phenolphthalein Indicator.
- 3. Titrate to a pink endpoint with 0.1N Sodium Hydroxide.
- 4. Calculation:

Mls. 0.1 N NaOH = Alu-Kleen 36 (% by volume)

Rev 1

#### **SAFETY:**

Alu-Kleen 36 is a mixture of organic acids and detergents. For skin contact wash with water. For eye contact flood with water and get medical attention if pain or irritation develop.

#### **DISPOSAL:**

Neutralize to pH 6.5 - 8.5 and skim accumulated oils before disposing of aqueous phase. Comply with all local, state and federal regulations.

#### **TESTING CHEMICAL AND CONTROL EQUIPMENT:**

Titration chemicals as well as automatic concentration control equipment are available upon request and may be obtained from Heatbath Corporation, Springfield, Massachusetts.

#### **NON-WARRANTY:**

The data contained in this bulletin is believed by Heatbath Corporation to be accurate, true and complete. Recommended parameters are based on a typical process and may be altered to accommodate specific requirements. Since, however, final use of the product is beyond our control, no warranty of results is expressed or should be implied.