



teklube



- ▶ **TEKLUBE** was established over 20 years ago with Headquarters and manufacturing facilities in East Yorkshire England supplying additives and multifunctional packages to the global lubricants and metalworking industry.
- ▶ **TEKLUBE** (ASIA) was established in South China in 2012 to supply additives and technical support to the rapidly expanding metalworking fluid market focusing on both international lubricant companies and local Chinese manufacturers.
- ▶ The main objectives of **TEKLUBE** (ASIA) as stated by Technical Director Mr Phil Littlewood is to provide customers with the products and the technical knowhow to manufacture quality metalworking fluids which meet international standards at competitive prices .
- ▶ Local manufacture has now been established in Guangzhou under U.K. supervision and audit to guarantee both product availability and competitive pricing. Supply chains via agents and franchisees which have been developed to improve product availability throughout China.
- ▶ **TEKLUBE** (ASIA) is committed to optimizing product formula performance, reducing consumption rate and improving environmental protection standards for customers, and providing "green chemical" products for the metalworking fluid market.



TEKLUBE ASIA PRODUCT INDEX



WATER BASED CORROSION INHIBITORS -----	01	SOLUBLE OIL PACKAGES -----	09
BORON COMPLEX -----	01	SEMI-SYNTHETIC PACKAGES -----	10
CARBOXYLIC ACID REACTION PRODUCTS ----	02	SYNTHETIC PACKAGES -----	11
OIL BASED CORROSION INHIBITORS -----	03	EP ADDITIVES -----	11
MULTIMETAL INHIBITORS -----	03	SULPHUR BASED ADDITIVES -----	11
COPPER CORROSION INHIBITOR -----	04	CHLORINATED ADDITIVES -----	12
ALUMINIUM CORROSION INHIBITOR -----	05	POLYGLYCOL/ ESTER -----	13
MAGNESIUM CORROSION INHIBITOR -----	05	SETTLING AGENT -----	14
AMIDES -----	06	ANTIFOAM -----	14
PIBSA -----	07	WATER BASED RUST INHIBITOR REMOVER -----	14
PIBSA REACTION PRODUCTS -----	08	BIOCIDE -----	15
MWF PACKAGES -----	09		

WATER BASED CORROSION INHIBITORS

BORON COMPLEX

Product name	Appearance	Density @20c, (g/cm ³)	pH(2% in D.I.WATER)	IP 287, V/V (Break point)	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRABOR 205M	Pale yellow clear liquid	1.27-1.31	9.00-10.00	2.00%	●	●	●	Primary amine boron complex
SAFRABOR 205M PLUS	Pale yellow clear liquid	1.27-1.31	9.00-10.00	1.50%	●	●	●	Modified primary amine boron complex
SAFRABOR 7M PLUS	Colorless to Pale yellow clear liquid	1.26-1.30	9.00-10.00	1.00%	●	●	●	Modified primary amine boron complex
SAFRABOR P3	Pale yellow clear liquid	1.13-1.17	9.00-10.00	2.00%	●	●	●	AMP based boron complex
SAFRABOR MPA 6	Pale yellow clear liquid	1.20-1.24	9.00-10.00	1.50%	●	●	●	MIPA based boron complex
SAFRABOR 215	Pale yellow clear liquid	1.25-1.27	9.00-10.00	2.00%	●	●	●	Primary and secondary amine boron complex
SAFRABOR S6	Colorless to Pale yellow clear liquid	1.26-1.30	9.00-10.00	2.00%	●	●	●	Secondary amine boron complex



CARBOXYLIC ACID SALT /ESTER

Product name	Appearance	Density @20c, (g/cm3)	pH(2% in D.I.WATER)	IP 287, V/V (Break point)	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRACOR 500	Faint yellow to pale yellow clear liquid	1.12-1.16	7.50-8.50	2.00%	●	●	●	Tertiary amine Polycarboxylate
SAFRACOR 550	Faint yellow to pale yellow clear liquid	1.06-1.10	9.00-10.00	1.00%	●	●	●	Amine neutralised carboxylate
SAFRACOR 595	Faint yellow to pale yellow clear liquid	1.03-1.07	8.70-9.70	2.00%	●	●	●	Secondary amine carboxylate
SAFRACOR 575	Faint yellow to pale yellow clear liquid	1.05-1.10	9.00-10.00	1.00%	●	●	●	Amine neutralised mixed carboxylate
SAFRACOR M100	Light yellow clear liquid	1.01-1.05	8.00-9.00	3.00%	●	●	●	MBM Carboxylate
SAFRACOR TCA	White wet solid	Not suitable	8.00-9.00	1.00%	●	●	●	Polycarboxylic Acid 50% Active



OIL BASED CORROSION INHIBITORS

Product name	Appearance	Acid value, mgKOH/g	Saponification value ,mgKOH/g	Oil solubility , 5% in 150N	Application recommendation			Product information
					Solvent type	Oil+Solvent type	Oil type	
SAFRACOR RP -15	Brown waxy semi-fluid	1.00-3.00	28.0-38.0	OK	●	●	●	Barium salt, oil based rust preventive agent
SAFRACOR RP2280B	Brown waxy semi-fluid	3.90-4.80	80.0-100.0	OK	●	●	●	Barium salt, oil based rust preventive agent

MULTIMETAL CORROSION INHIBITORS

COPPER CORROSION INHIBITOR

Product name	Appearance	Density @20c, (g/cm3)	pH Value (2%)	Total alkalinity, KOH%	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
TEKCOR YMI	Pale yellow clear liquid	1.02-1.06	5.0-6.0		●	●	●	Benzotriazole derivative
SAFRACOR YMI 42	Faint yellow clear liquid	1.150-1.190	8.3-9.3	15.00 – 20.00		●	●	Benzotriazole derivative



Product name	Appearance	Density @20c, (g/cm3)	kinematic viscosity@ 40 C , mm2/s	Flash point (opened cup, C)	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Neat oil	
SAFRACOR YMI 39	Yellow clear liquid	0.91-1.01	60.0-85.0	Above 150 °C	●	●	●	Benzotriazole derivative

Product name	Appearance	PH Value	Water content , %	Purity, %	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRACOR BTA	White to pale yellow needle-like solid	5.00-7.00	≤0.1	≥99.8	●	●	●	Benzotriazole
SAFRACOR TTA	White to pale yellow flakes	5.50-6.50	≤0.2	≥99.5	●	●	●	Toluyltriazole



ALUMINUM CORROSION INHIBITOR

Product name	Appearance	Density @20c, (g/cm ³)	pH (10g/L in 10% ethanol)	Acid vlaue , mgKOH/g	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRAFOS P950	Colorless to pale yellow clear liquid	1.00-1.04	≤3.0	160.0-200.0	●	●	●	Fatty alcohol polyoxyethylene ether phosphate
SAFRACOR AL 100	Colorless to pale yellow clear liquid	1.08-1.12	6.0-7.0	≤3.0	●	●		Phosphorus-free and silicon-free fatty acid ester
SAFRAFOS P960	Colorless to pale yellow clear liquid	1.00-1.04	≤3.0	420.0-520.0			●	Octylphosphonic acid
SAFRAFOS AL	Faint yellow Vicous clear liquid	1.18-1.22	≤3.0	170.0-210.0			●	Phenyl poly propylene oxide phosphate

MAGNESIUM CORROSION INHIBITOR

Product name	Appearance	Density @20c, (g/cm ³)	pH (10g/L in 10% ethanol)	Acid vlaue , mgKOH/g	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
Multitect MG	Yellow clear liquid	0.95-0.99	5.0-7.0	140-160	●	●	●	Reactant of special fatty acids with phosphate



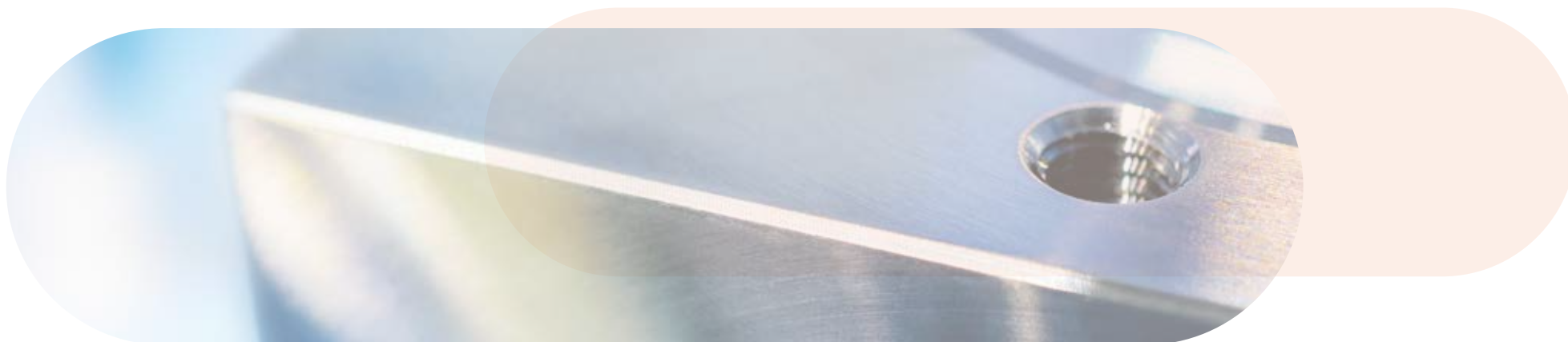
AMIDE

Product name	Appearance	Density @20c, (g/cm3)	pH(2% in D.I.WATER)	Total alkalinity, KOH%	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRAMIDE GD 208	Amber clear liquid (light)	0.99-1.03	10.0-11.0	17.5-21.5	●	●		Polydiethanolamide
SAFRAMIDE GDP 28LF	Amber clear liquid	0.98-1.02	10.0-11.0	17.5-21.5	●	●		Modified Polydiethanolamide
SAFRAMIDE RDT 14	Amber clear liquid (light)	0.96-1.00	9.5-10.5	6.0-10.0	●	●		Secondary amine based amide
SAFRAMIDE DGA 300	Dark amber clear liquid	0.95-0.99	10.0-11.0	12.0-17.0	●	●	●	Diglycolamine based amide



PIBSA

PIBSA								
Product name	Appearance	Density @20c, (g/cm3)	kinematic viscosity@ 40 C , mm2/s	Acid value, mgKOH/g	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Neat oil	
SAFRAPIB 800	Yellow clear liquid	0.89-0.93	600-900	52.0-62.0	●	●	●	Molecular weight is 800, not neutralized, the effective component is 85%.
SAFRAPIB 900	Yellow clear viscous liquid	0.91-0.95	6000-9000	65.0-75.0	●	●	●	Molecular weight is 900, not neutralized, the effective component is 85%.
SAFRAPIB 950H	Amber to dark amber clear liquid	0.88-0.92	2500-3500	59.0-65.0	●	●	●	Molecular weight is 950, not neutralized, the effective component is 76%.
SAFRAPIB 1000	Yellow clear viscous liquid	0.93-0.98	600-1000 (V100 C)	58.0-68.0	●	●	●	Molecular weight is 1000, not neutralized, the effective component is 100%.
SAFRAPIB 1000D	Red brown clear viscous liquid	0.90-0.94	350-750 (V100 C)	40.0-60.0	●	●	●	Molecular weight is 1000, not neutralized, the effective component is 100%.



PIBSA REACTION PRODUCTS

Product name	Appearance	Density @20c, (g/cm ³)	Acid value, mgKOH/g	Total alkalinity, KOH%	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRANATE 100 PLUS	Amber clear liquid	0.95-0.99	35.0-45.0	5.00-9.00	●	●		Amide neutralized PIBSA
SAFRANATE D 100 PLUS	Brown clear liquid	0.95-0.99	30.0-40.0	5.00-9.00	●	●		Amide neutralized PIBSA
SAFRANATE ECO	Dark amber clear liquid	0.95-0.99	22.0-32.0	4.00-6.00	●	●		Anti-rust emulsifier package based on PIBSA
SAFRANATE C	Amber clear liquid	0.95-0.99	30.0-36.0	4.00-8.00	●	●		Anti-rust emulsifier package based on PIBSA



MWF PACKAGES

SOLUBLE OIL PACKAGE

Product name	Appearance	Density @20c, (g/cm ³)	pH(2% in D.I.WATER)	Total alkalinity, KOH%	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRANATE MP-12	Dark amber clear liquid	0.95-0.99	9.00-10.00	4.0-6.0	●	●		Soluble oil package based on PIBSA and sulfonate, Suitable for paraffinic mineral oil
SAFRANATE MULTI FX900	Dark amber clear liquid	0.95-0.99	9.00-10.00	4.0-6.0	●	●		Soluble oil package based on PIBSA and sulfonate, Suitable for paraffinic mineral oil
SAFRANATE GP-11	Amber clear liquid	0.96-1.00	9.00-10.00	2.0-5.0	●	●		Soluble oil package based on PIBSA and sulfonate, Suitable for 30cst paraffinic mineral oil
SAFRANATE MP 15A	Amber clear liquid	0.94-0.98	9.00-10.00	3.3-4.0	●	●		Soluble oil package based on PIBSA and sulfonate, Suitable for paraffinic mineral oil
SAFRANATE MP 15D	Orange brown clear liquid	0.93-0.97	9.00-10.00	3.3-4.3	●	●		Soluble oil package based on PIBSA and sulfonate, Suitable for paraffinic mineral oil
SAFRANATE P9#	Orange brown clear liquid	0.97-1.01	10.0-11.0	2.3-3.3	●			Soluble oil package based on Sulfonate, suitable for naphthenic mineral oil



SEMI-SYNTHETIC PACKAGE

Product name	Appearance	Density @20c, (g/cm ³)	pH (2% in D.I.Water)	Total alkalinity, KOH%	Application recommendation	Product information
SAFRANATE INFINITI	Yellow clear liquid	1.00-1.04	9.0-10.0	12.3-15.0	Semi-synthetic MWF	Low oil content semi-synthetic package ,Based on amide and boron complex , suitable for ferrous metals
SAFRANATE INFINITI MULTI	Amber clear liquid	1.06-1.10	9.0-10.0	16.0-22.0	Semi-synthetic MWF	Low oil content semi-synthetic package based on PIBSA and boron complex ,suitable for ferrous metals and nonferrous metals.
SAFRANATE 50C-AL	Yellow clear liquid	0.96-1.00	9.0-10.0	7.2-8.8	Semi-synthetic MWF	Semi-synthetic package Medium oil content based on PIBSA and boron complex for machining aluminum
SAFRANATE 262	Amber clear liquid	0.99-1.03	8.8-9.8	8.5-10.5	Semi-synthetic MWF	Package to manufacture high oil sem synthetic by adding paraffinic base oil

FULLY SYNTHETIC PACKAGE

Product name	Appearance	Density @20c, (g/cm ³)	pH (2% in D.I.Water)	IP 287, V/V (Break point)	Application recommendation	Product information
SAFRACOR CGF 100S	Faint yellow clear liquid	1.19-1.23	9.0-10.0	1.50%	Fully synthetic grinding	Fully synthetic package based on Amine carboxylates and boron complex
SAFRA XTREME 5500AM/BF	Faint yellow clear liquid	1.07-1.10	8.5-9.5	3.50%	Fully synthetic grinding ,cutting	Nitrogen /Boron free heavy duty fully synthetic package
SAFRA XTREME WS 40 PG	Pale yellow clear liquid	1.04-1.08	8.5-9.5	4.50%	Fully synthetic MWF	Polyglycol and corrosion inhibitor package, cloud point is 55 °C
SAFRA XTREME WS 40 MAX	Pale yellow clear liquid	1.04-1.08	8.5-9.5	4.50%	Fully synthetic MWF	Polyglycol and corrosion inhibitor package, cloud point is 40 °C
SAFRA XTREME WS 55 PG	Pale yellow clear liquid	1.03-1.07	8.0-9.0	3.00%	Fully synthetic MWF	Polyglycol and corrosion inhibitor package, cloud point is 55 °C

EP ADDITIVES

SULPHUR BASED ADDITIVES

Product name	Appearance	Density @20c, (g/cm3)	kinematic viscosity@ 40 C , mm2/s	Copper corrosion (100±1 C) , Grade	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Neat oil	
SAFRA XTREME LES15A	Yellow clear liquid	0.94-0.98	48.00-52.00	4	●	●	●	Modified ester based sulphurised olefin, sulphur content 15%
SAFRA XTREME LES 11	Orange red clear liquid	0.93-0.97	31.00 –38.00	1	●	●	●	Modified ester based inactive sulphurised olefin, sulphur content 11%
SAFRA XTREME LS 20	Yellow clear liquid	0.92-0.96	46.00-56.00	1	●	●	●	Inactive sulphurised olefin, sulphur content 20%
SAFRA XTREME DES 10	Brown clear liquid	0.95-0.99	250.0-350.0	1	●	●	●	Inactive sulphurised ester, sulphur content 10%

Product name	Appearance	Density @ 20c,(g/cm3)	kinematic viscosity@ 40 C , mm2/s	Acid value, mgKOH/g	Application recommendation	Product information
SAFRA XTREME GG200	Yellow clear liquid	0.98-1.02	50.0-70.0	55.0-75.0	Gear oil grinding	Gear grinding oil package
SAFRA XTREME GG350	Orange red clear liquid	0.89-0.93	20.0-30.0	≤1.0	Gear hobbing/ shaving	Heavy duty gear processing oil package with phosphorus (P) free

CHLORINATED ADDITIVES

Product name	Appearance	Density @20c, (g/cm ³)	kinematic viscosity@ 40 °C , mm ² /s	Copper corrosion (100±1 °C) , Grade	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Neat oil	
SAFRA XTREME LEC 30	Yellow clear liquid	1.10-1.14	79.0-97.0	1	●	●	●	Chlorinated fatty acid ester with chlorine content of 30%
SAFRA XTREME CP 52	Pale yellow clear liquid	1.23-1.27	404.0-494.0	1	●	●	●	Medium and long chain chlorinated paraffin with chlorine content of 52%

Product name	Appearance	Density @ 20c,(g/cm ³)	pH (1% in D.I.Water)	Acid value, mgKOH/g	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRA XTREME LDC 25/400	Yellow clear liquid	1.09-1.13	Not suitable	125.0-155.0	●	●	●	Polymer of chlorinated fatty acids

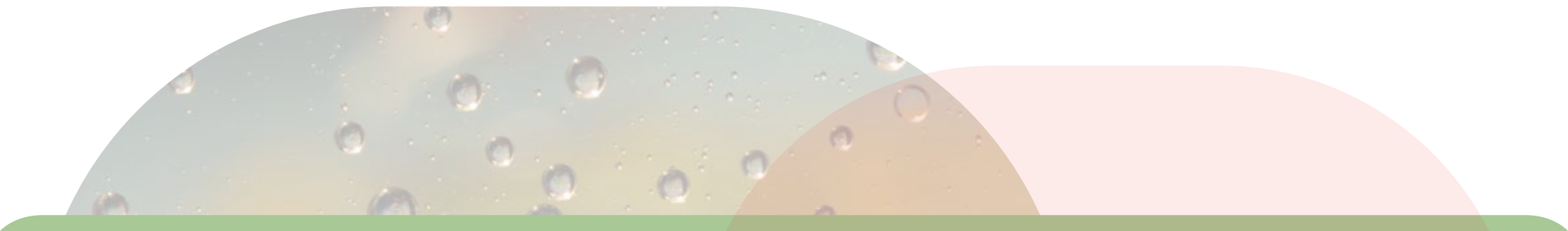
POLYGLYCOL /ESTER

Product name	Appearance	Density @20c, (g/cm ³)	pH (2% in D.I.Water)	Cloud point (1% in D.I.Water)	Application recommendation	Product information
SAFRA XTREME LF 40X	Colorless clear liquid	1.01-1.05	6.00-7.00	38.5-41.5	Fully synthetic MWF	Low foam polyglycol, cloud point 40 °C
SAFRA XTREME LF 38	Colorless clear liquid	1.01-1.05	5.50-7.50	35.5-39.5	Fully synthetic MWF	Low foam polyglycol, cloud point 38 °C
SAFRA XTREME WS 700PGE	Yellow translucent liquid	1.01-1.05	7.60-8.80	5.00-9.00	Fully synthetic MWF	Polymer of fatty acid ester

POLYESTER /ESTER

Product name	Appearance	Density @20c, (g/cm ³)	kinematic viscosity@ 40 °C , mm ² /s	Acid value, mgKOH/g	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Neat oil	
SAFRAESTER TMP	Yellow clear liquid	0.89-0.93	40.00-50.00	≤3.0	●	●	●	Polyol ester
SAFRAESTER 20S	Light amber clear liquid	0.88-0.92	22.00-28.00	≤0.5	●	●	●	Polyol ester

Product name	Appearance	Density @20c, (g/cm ³)	pH (1% in D.I.Water)	Acid value, mgKOH/g	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRAESTER 30S	Red brown clear liquid	0.96-1.00	5.5-6.5	40.0-60.0	●	●	●	Polyol self-emulsifying ester
SAFRAESTER 40S	Yellow translucent liquid	1.00-1.04	3.5-5.5	30.0-40.0			●	Polymer of fatty acid ester
SAFRAESTER 50S	Amber clear liquid	0.90-0.94	not suitable	35.0-65.0	●	●		Self-emulsifying ester based on DCHA



SETTLING AGENT

Product name	Appearance	Density @ 20c,(g/cm3)	pH (2% in D.I.Water)	Application recommendation	Product information
SAFRACAT 50	Yellow clear liquid	1.08-1.12	4.0-7.0	Fully synthetic MWF	Quaternary ammonium cation
SAFRACAT 80	Colorless clear liquid	1.01-1.05	3.0-5.0		Nonionic PAM

ANTIFOAM

Product name	Appearance	Density @20c, (g/cm3)	pH Value	Solid content %	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
SAFRABURST G15	White Milky	0.99-1.03	6.0-8.0	80.0-100.0	●	●	●	Polymethyl siloxane
SAFRABURST NWF 06	White Milky	0.99-1.03	6.0-8.0	64.0-66.0	●	●		Polymethyl siloxane

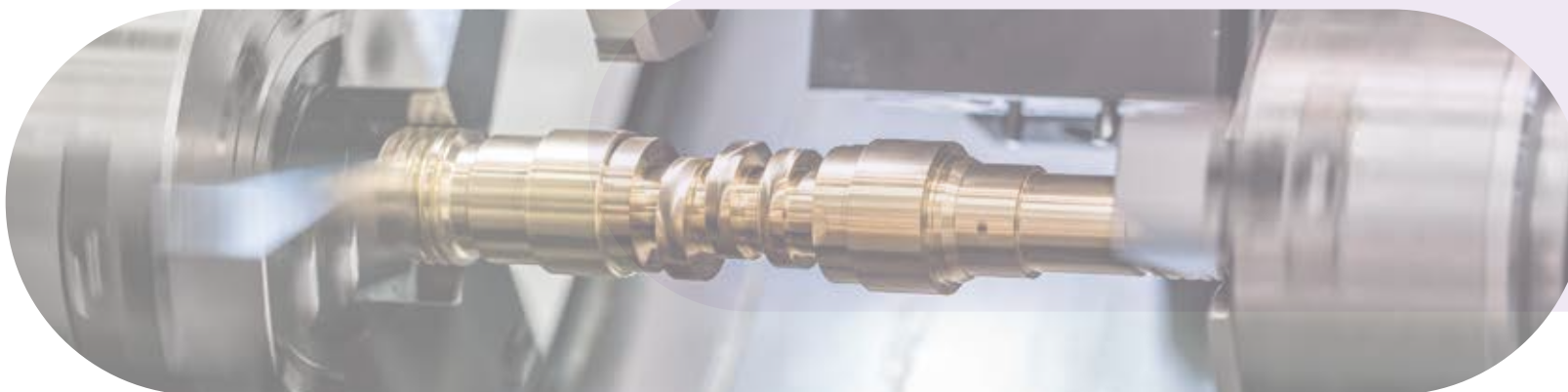
WATER BASED RUST INHIBITOR REMOVER

Product name	Appearance	Density @20c, (g/cm3)	pH (2% in D.I.Water)	Application recommendation	Product information
SAFRAXRUST	Pale Yellow clear liquid	1.32-1.36	4.00-7.00	Rustremover on ferrous metal	Special formulation system, neutral PH value system



BIOCIDE / FUNGICIDE

Product name	Appearance	Density @20c, (g/cm ³)	pH (2% in D.I.Water)	Total alkalinity, KOH%	Application recommendation			Product information
					Soluble oil	Semi-synthetic	Fully synthetic	
TEKCIDE TR	Pale yellow clear liquid	1.10-1.15	10.0-12.0	58.0-72.0	●	●	●	Triazine bactericide
TEKCIDE MBM	Pale yellow clear liquid	1.03-1.07	9.0-11.0 (0.1%)	80.0-90.0	●	●	●	Bimorphine type biocide
TEKCIDE BT	Pale yellow clear liquid	1.16-1.20	8.0-12.0 (concentrate)	8.70-10.7	●	●	●	Isothiazolinone
TEKCIDE IPBC	Pale yellow clear liquid	1.14-1.5	6.8-8.0 (0.1%)		●	●		Iodopro-propynyl n-butyl carbamate
TEKCIDE OM	grayish yellow clear liquid	1.09-1.23	8.5-10.5		●	●	●	Sodium pyrrithione



Teklube offer a range of customer support services such as:

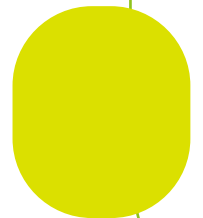
- **Technical Services**
- **Product Development**
- **Manufacturing**

With decades of experience with metalworking formulations and engineering applications the chemists at Teklube are amongst the most experienced in the industry and are most capable of meeting your technical requirements.

Teklube may support you with:

- Product selection of additives/intermediates and formulatory advice
- Laboratory support in the development of formulations based upon a particular additive type
- Development of new additives to meet particular requirements
- Finished products for key applications
- New product development
- Environmentally sensitive applications
- OEM approvals
- End user customer visits
- Telephone and 'On Site' support
- Training
- Technology updates
- ISO9001:2015

Technical services support for our customers is seen as a crucial part of ensuring that our products provide the most effective solution to a particular requirement.





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