



ACC

Advanced Chemical Concepts, Inc.

**Additives
For Metalworking
And Industrial Lubricants**



Building Win/Win Long Term Sustainable Relationship

INTRODUCTION

At **Advanced Chemical Concepts, Inc.**, we believe that chemical products can be designed to work in harmony with the user and the environment.

Our mission is to enable the formulators and blenders of Metalworking and Industrial lubricants to design products that are:

- ◆ Highly effective
- ◆ Maintenance free
- ◆ Long lasting
- ◆ User friendly
- ◆ Environment friendly
- ◆ High value

We do that by supplying:

- ◆ State-of-the-art **Additives** and **Specialty Chemicals**
- Strong technical support
- Timely services
- Reliable supply

Our distribution centers are strategically located to serve our customers.

PRODUCTS AND APPLICATIONS

TAS COR:	<i>Rust Preventives and Corrosion Inhibitors</i>	3 - 5
TAS SOL:	<i>Emulsifiers and Surfactants</i>	6 - 7
TAS XP:	<i>Lubricity and EP Additives, Mold Release Agents and others.....</i>	8 - 9
ACC:	<i>Block Copolymers</i>	10
	<i>Amides, Specialty Amines and other Complementary Products</i>	11
TAS LUBE:	<i>Self Emulsifying Lubricant Packages.....</i>	11

CORROSION INHIBITORS and RUST PREVENTIVES

TAS COR *water soluble corrosion inhibitors and oil soluble rust preventives* are designed to provide protection in a wide variety of applications such as: ***In process, in transit and short term sheltered storage.***

WATER SOLUBLE CORROSION INHIBITORS

Product	Description	Applications
TAS COR 860	Special Amine Borate High reserve alkalinity Good buffering agent Biocide Potentiator	Synthetic and Semi-synthetic fluids Soluble oils, Rust preventives Tank side additive
TAS COR 863	Amine Borate Buffering agent Corrosion inhibitor High boron content Biocide Potentiator	Synthetic and Semi-synthetic fluids Soluble oils Alkaline cleaners Tank side additive
TAS COR 100	Corrosion inhibitor concentrate, Blend of selected amine carboxylates Excellent buffering properties Boron free, Low treat rate	In-process and short term indoor protection for ferrous metals Synthetic and Semi-synthetic fluids Rust preventives, Alkaline cleaners
TAS COR 200	Corrosion inhibitor concentrate Blend of selected amine carboxylates Excellent buffering properties Boron free, Low treat rate	In-process and short term indoor protection for ferrous metals Synthetic and Semi-synthetic fluids Rust preventives, Alkaline cleaners
TAS COR 210	Corrosion inhibitor concentrate Biocide Potentiator Blend of selected amines and carboxylic acids Excellent buffering properties Boron free	In-process and short term indoor protection for ferrous metals Excellent source of reserve alkalinity in: ♦ Synthetic and Semi-synthetic fluids ♦ Soluble oils Helps extends sump life
TAS COR 220	Amine free corrosion inhibitor concentrate Boron free Phosphate free	In-process and short term indoor protection for ferrous metals Synthetic and Semi-synthetic fluids Rust preventives, Alkaline cleaners
TAS COR 241	Aluminum anti-staining additive Low treat rate 0.5-1% in concentrate Protects aluminum and ferrous metals Low foam, Neutral pH	Synthetic fluids, Semi-synthetic fluids Soluble oils Cleaners Water soluble rust preventives
TAS COR PE 401	Aluminum anti-staining additive Low treat rate 0.5-1% in concentrate Protects aluminum and ferrous metals Phosphate ester acid	Synthetic fluids, Semi-synthetic fluids Soluble oils Cleaners Water soluble rust preventives

CORROSION INHIBITORS AND RUST PREVENTIVES

Oil And Solvent Soluble Rust Preventive Additives

TAS COR oil and solvent soluble rust preventives are designed to provide excellent protection in a wide variety of applications such as: *In process, in transit, (including ocean shipping) and in other sheltered storage*

WATER DISPLACING RUST PREVENTIVES

Product	Description	Applications
TAS COR 1510	Good humidity cabinet protection Leaves a <i>thin waxy film</i> Non-staining, low odor, light color Congeal Point 35 °C, Barium based	<ul style="list-style-type: none"> • General purpose rust preventive • Mill oils and slushing oils • Indoor storage • Sheltered in-transit and ocean shipping
TAS COR 2001	Good humidity protection Leaves a <i>thin waxy film</i> Congeal Point, 35 °C Non-staining, Barium free	<ul style="list-style-type: none"> • General purpose rust preventive • Mill oils and slushing oils • Indoor storage • Sheltered outdoors and in-transit • Neat cutting and grinding oils
TAS COR 2007	Superior humidity and salt fog protection Leaves a <i>thin waxy film</i> Congeal Point, 33 °C Non-staining, Barium free	<ul style="list-style-type: none"> • General purpose rust preventive • Mill oils and slushing oils • Indoor storage • Sheltered outdoors and in-transit • Neat cutting and grinding oils
TAS COR 2013	Good humidity and salt fog protection Leaves a <i>thin waxy film</i> Congeal Point, 38 °C Non-staining, Barium free	<ul style="list-style-type: none"> • General purpose rust preventive • Mill oils and slushing oils • Indoor storage • Sheltered outdoors and in-transit • Neat cutting and grinding oils
TAS COR 2015	Good acid vapor protection Leaves a <i>thin waxy film</i> Congeal Point, 33 °C Non-staining, Barium Free	<ul style="list-style-type: none"> • General purpose rust preventive • Mill oils • Indoor and sheltered storage
TAS COR 2077	Water Displacing Rust Preventive Lubricity agent and penetrating oil Leaves a <i>thin oily film</i> Non-staining, Low odor, light color	<ul style="list-style-type: none"> • Low VOC rust preventive • Mill oils • Indoor and sheltered storage • Penetrating oils • Water Displacing Rust Preventives
TAS COR 2099	Water Displacing Rust Preventive Lubricity agent and penetrating oil Excellent Salt Fog protection Leaves a <i>thin oily film</i> Non-staining Low odor, light color	Formulation of: <ul style="list-style-type: none"> • Penetrating oils • Lubricants • Water Displacing Rust Preventives

WATER SOLUBLE RUST PREVENTIVES

Product	Description	Applications
TAS COR 417	<p>Readily water soluble Excellent Humidity cabinet protection Leaves a thin dry film Non-staining, non-sticking Low VOC , Barium free</p>	<p><i>Good replacement for solvent based rust preventives</i> Dip tanks and Spray washers after final cleaning Long term storage & In-transit</p>
TAS COR 425	<p>Amide Water dispersible, Low VOC Film former - Leaves a waxy film</p>	<p>Replacement for petroleum waxes For use in water based RP</p>
TAS COR 455	<p>Self emulsifying Good Humidity and Salt Fog protection Leaves a thin dry film Non-staining, For use on all metals Excellent lubricant, Barium free</p>	<p>Dip tanks and Spray washers after final cleaning Prelube, Blank Wash Drawing Compounds Long term storage & In-transit</p>

WATER DISPERSIBLE CORROSION INHIBITORS

TAS COR 367	<p>Calcium sulfonate based Good oil emulsifier Low foam Excellent wetting</p>	<p>Boosts corrosion protection in soluble oils and semi-synthetic fluids Indoor rust preventive Emulsifiable rust preventives</p>
TAS COR 375	<p>Barium sulfonate based Good oil emulsifier Low foam Excellent wetting</p>	<p>Boosts corrosion protection in soluble oils and semi-synthetic fluids Indoor rust preventive Emulsifiable rust preventives</p>

CALCIUM/ AND BARIUM SULFONATES

TAS COR CS 400	<p>Overbased Calcium Sulfonate Total Base Number: 400 Oil Soluble</p>	<ul style="list-style-type: none"> • Corrosion inhibitor in mill oils • Rust preventives • Lubricating oils and greases • Demulsifier
TAS COR CSN	<p>Neutral Calcium Sulfonate based on Synthetic Sulfonic Acid Total Base Number: < 6 Oil Soluble</p>	<ul style="list-style-type: none"> • Corrosion inhibitor in mill oils • Rust preventives • Lubricating oils and greases • Demulsifier
TAS COR BSN	<p>Neutral Barium Sulfonate Total Base Number: <5 Oil Soluble</p>	<ul style="list-style-type: none"> • Corrosion inhibitor in mill oils • Rust preventives • Lubricating oils and greases • Demulsifier

EMULSIFIERS

TAS SOL emulsifiers are designed to emulsify a broad range of mineral oils, triglycerides, esters and others.

EMULSIFIERS FOR MINERAL OILS, TRIGLYCERIDES, ESTERS AND OTHERS

Product	Description	Applications
TAS SOL 205E	Emulsifier for Methyl Esters of triglycerides Hard water stable	Emulsion degreasers, Emulsion cleaners Mold release agents, Hand soaps
TAS SOL 306T	Emulsifier for Triglycerides Hard water stable	Metalworking fluids Stamping and drawing compounds
TAS SOL DL	Emulsifier for d-Limonene	Degreasing and cleaning emulsions
TAS SOL 0-10.....	Emulsifier for mineral oils POE (10) C ₁₈ Alcohol - HLB 11.8	<ul style="list-style-type: none"> • Semi-synthetic fluids • Soluble oils
TAS SOL 0-5.....	Primary Emulsifier for mineral oils POE (5) C ₁₈ Alcohol - HLB 7.9	<ul style="list-style-type: none"> • High pressure applications
TAS SOL 0-2.....	Co-Emulsifier for mineral oils POE (2) C ₁₈ Alcohol - HLB 5 <i>Hard water stable, Low foam</i>	<ul style="list-style-type: none"> • Emulsifiable rust preventives • Emulsion cleaners
TAS SOL EM-8.....	Emulsifier for naphthenic oils EO/PO C ₁₆ C ₁₈ Alcohol - HLB 8.0–9.0	<ul style="list-style-type: none"> • Semi-synthetic fluids • Soluble oils
TAS SOL EM-10.....	Anionic Emulsifier for naphthenic oils Based on EO/PO C ₁₆ C ₁₈ Alcohol HLB 9.0–10.0 <i>Hard water stable, Low foam</i>	<ul style="list-style-type: none"> • High pressure applications • Emulsifiable rust preventives • Emulsion cleaners
TAS SOL T-8.....	POE (8) Tallow Amine - HLB - 11.5	Oil soluble emulsifier for mineral oils Lubricant <i>Hydrolytically and thermally stable</i>
TAS SOL T-7.....	POE (7) Tallow Amine - HLB - 10.7	
TAS SOL T-5.....	POE (5) Tallow Amine - HLB - 9.3	
TAS SS 475.....	Natural Sodium Sulfonate Molecular weight: 450-495 % Active: 60	<ul style="list-style-type: none"> ◆ Primary emulsifier in: <ul style="list-style-type: none"> • Semi-synthetic fluids • Soluble oils ◆ Corrosion inhibitor, co-emulsifier in: <ul style="list-style-type: none"> • Semi-synthetic fluids • Soluble oils, Rust preventives
TAS SS 540.....	Natural Sodium Sulfonate Molecular weight: 500-550 % Active: 50 - 60	
ACC AE-41	<i>Monofunctional linear alcohol Alkoxylate</i> HLB - 7	Wetting agent, emulsifier Foam control
ACC A-23	A blend of C ₁₂ and C ₁₃ primary alcohols HLB - 2-3	Foam control

SOLUBLE BASES - CONTAINING NATURAL SODIUM SULFONATES

Product	Description	Applications
TAS SOL 10N	Emulsifier base for Naphthenic oils With Aniline point of 150 °F - 180 °F	General purpose soluble oils Safe for most metals Compatible with most EP additives
TAS SOL 20N	Emulsifier base for Naphthenic oils With Aniline point of 160 °F - 185 °F	General purpose soluble oils Safe for most metals Compatible with most EP additives
TAS SOL 50P	Emulsifier base for Paraffinic oils With Aniline point of 180 °F - 210 °F	General purpose soluble oils Safe for most metals Compatible with most EP additives
TAS SOL 60P	Emulsifier base for Paraffinic oils With Aniline point of 200 °F - 230 °F	General purpose soluble oils Safe for most metals Compatible with most EP additives

SOLUBLE BASES - WITH NO SODIUM SULFONATES

TAS SOL 111N	Emulsifier base for Naphthenic oils With Aniline point of 150 °F - 175 °F	General purpose soluble oils In-process corrosion protection Safe for most metals
TAS SOL 113N	Premium emulsifier base for Naphthenic oils With Aniline point of 150 °F - 185 °F Hard water stable, Good lubricity	Low foam, fit for high pressure applications Good for machining aluminum and steel Safe for most metals
TAS SOL 117P	Emulsifier base for Paraffinic oils With Aniline point of 180 °F - 210 °F	General purpose soluble oils In-process corrosion protection Safe for most metals
TAS SOL 119P	Premium emulsifier base for Paraffinic oils With Aniline point of 200 °F - 230°F Hard water stable, good lubricity	Low foam, fit for high pressure applications Good for machining aluminum and steel Safe for most metals

We custom design “Emulsifier Packages” to your specific applications, including:

- *High pressure operations*
- *High water hardness, High chlorides water*
- *Machining of Aluminum, Magnesium and other metals*
- *Bio-stable fluids*

LUBRICANTS

TAS XP represents a line of Lubricity Agents, Extreme Pressure and Anti-wear Additives designed to meet the most demanding applications.

WATER SOLUBLE LUBRICITY AND EP ADDITIVES

Product	Description	Applications
TAS XP 21	Water Soluble Succinic Ester, with amine Highly Stable lubricity additive Co-emulsifier Good corrosion protection	Synthetic and semi-Synthetic Fluids Excellent for machining and forming of: <ul style="list-style-type: none"> • Ferrous metals • Non-Ferrous metals
TAS XP 31	Water Dispersible/Oil Soluble Succinic Ester, with amine Highly Stable lubricity additive Co-emulsifier, Good corrosion protection	Semi-synthetic fluids and soluble oils Excellent for machining and forming of: <ul style="list-style-type: none"> • Ferrous metals • Non-Ferrous metals
TAS XP 34	Self-Emulsifying Ester Hard water stable Low foam, Oil free Synergistic with TAS XP 1216A	Semi-synthetic fluids and Soluble oils Excellent for machining of: <ul style="list-style-type: none"> • Aluminum and Magnesium • Titanium and Steel
TAS XP 48	Outstanding multi-metal lubricity additive Self-emulsifying Hard water stable, Low foam, Oil free Synergistic with TAS XP 1204A	Synthetic and low oil, semi-synthetic fluids Excellent for machining of: <ul style="list-style-type: none"> • Aluminum and Magnesium • Titanium and Steel
TAS XP 52	Outstanding multi-metal lubricity additive Self-emulsifying Hard water stable, Low foam, Oil free Synergistic with TAS XP 48	Synthetic and semi-synthetic fluids, Soluble oils Excellent for machining of: <ul style="list-style-type: none"> • Steel and Titanium • Aluminum and Magnesium
TAS XP 660.....	Polyalkylene Glycol , Lubricant Base Stock Excellent lubrication, low pour point High film strength Viscosity @ 100 °F: 660 SUS/143 cSt	Synthetic metalworking fluids: <ul style="list-style-type: none"> • Machining & Forming
TAS XP 5100.....	Viscosity @ 100 °F: 5100 SUS/1100 cSt	Industrial Lubricants: <ul style="list-style-type: none"> • Hydraulic fluids, Gear lubricants • Compressor lubricants • High temperature lubricants
TAS XP-6000S	PEG 150 Distearate Solid flakes at room temperature Melt point, 35 °C Water soluble	Film builder, Viscosity builder Water based Forming Fluids Deep drawing, Multi-stage stamping
Water Soluble Phosphate Esters		
TAS XP 41P	Phosphate Ester in Acid Form Good hydrodynamic lubrication Extreme pressure additive	Water soluble metalworking fluids Machining of steel and aluminum Stamping and Drawing
TAS XP 308P	Phosphated Castor Oil Good hydrodynamic lubrication Extreme pressure additive	Water soluble metalworking fluids Machining of steel and aluminum Stamping and Drawing

OIL SOLUBLE LUBRICITY AND EP ADDITIVES

Product	Description	Applications
TAS XP 100T	Trimethylolpropane Trioleate Good hydraulic base	Soluble oils, Semi-synthetic fluids Steel Cold Rolling, Aluminum Hot Rolling
TAS XP 200P	Pentaerythritol Tetraoleate Good base fluid	Soluble oils, Semi-synthetic fluids Steel Cold Rolling, Aluminum Hot Rolling
TAS XP 1000	High Molecular Weight Polymeric Ester High Viscosity Index, Shear stable Synergistic with phosphated and sulfurized additives	Semi-synthetic fluids, Soluble oils, Neat oils Machining of Aluminum and Steel
TAS XP 1025	High Molecular Weight Polymeric Ester High Viscosity Index, Shear stable Synergistic with phosphated and sulfurized additives	Soluble oils, Neat oils Stamping , Drawing Machining of Aluminum and Steel
TAS XP 1050H	Highly Polymerized Ester Solid at room temperature, Melt Point, 35 °C Synergistic with phosphated and sulfurized additives	Forming Oils Stamping , Drawing Rust Preventive, Dry Film Lubricants
TAS XP 1015S	Highly Polymerized Ester, EP Additive Contains 15% Inactive Sulfur	Machining Fluids Stamping , Drawing
TAS XP 1204A	Complex Ester with Reserve Acid Number Lubricity Booster - Excellent boundary lubricant Synergistic with TAS XP 48 Low HLB co-emulsifier (When neutralized)	Soluble oils, Semi-synthetic fluids <ul style="list-style-type: none"> • Machining of Aluminum and Steel • Metal Forming Fluids
TAS XP 1216A	Complex Branched Fatty Acid Lubricity Booster - Excellent boundary lubricant High HLB emulsifier (When neutralized)	Soluble oils, Semi-synthetic fluids <ul style="list-style-type: none"> • Machining of Aluminum and Steel • Metal Forming Fluids
TAS XP 1222E	Complex Branched Ester Excellent boundary lubricant High film strength - Hydrophobic	Soluble oils, Semi-synthetic fluids <ul style="list-style-type: none"> • Machining of Aluminum and Steel • Metal Forming Fluids

LUBRICITY AGENTS FOR INDUSTRIAL LUBRICANTS

TAS XP 102E	Synthetic Lube Base Oil Very low Pour Point and high Flash Point	Lubricant Base Stock Gear lubricants, Heat Transfer Fluids
TAS XP 211E	Synthetic Ester Base Stock Polyol ester made from saturated fatty acids	Two cycle engine oil Hydraulic oils, Gear oils, Compressor lubes
TAS XP 540E	Lubricant Component Base stock or lube additive, Low Pour Point	Gear lubricants, Heat Transfer Fluids Metal Forming Fluids

Oil Soluble Phosphate Esters

TAS XP 37P	Phosphate Ester, acid form Oil soluble EP and anti-wear additive	Anionic emulsifier for water insoluble polyalkylene glycols Stamping and Drawing Compounds
TAS XP PE-400 TAS XP PE-405	Phosphate Ester of Ethoxylated Alcohol Excellent boundary and EP lubricant Synergistic with polymeric esters	Soluble oils, Semi-synthetic fluids Stamping , Drawing Machining of Aluminum and Steel

BLOCK COPOLYMERS

ACC BP Block Copolymers are highly effective anti-foam and boundary lubricants in synthetic and semi-synthetic metal working fluids.

Product	Description	HLB	Cloud Point (1% Solution)
ACC BP-61	Low foam surfactant, lubricant and intermediate, Useful in <i>hard surface cleaning and metalworking fluids</i>	3	24°C / 75°F
ACC BP-62	Low foam detergent, emulsifier, lubricant and intermediate Useful in <i>hard surface cleaning and metalworking fluids</i>	7	32°C / 89.6°F
ACC BP-62LF	A non foaming/defoaming version of ACC BP-62	6.6	28°C / 82.4°F
ACC BP-64	Low foam detergent, emulsifier, lubricant and intermediate Useful in <i>hard surface cleaning and metalworking fluids</i>	N/A	60°C / 140°F
ACC BP-10R5	Acts as a wetting agent, defoamer, dispersing agent and Emulsifier	N/A	69°C / 156°F
ACC BP-17R1	Wetting agent, defoamer, dispersant, emulsifier and <i>lubricity agent in synthetic metalworking fluids</i>	N/A	34°C / 93°F
ACC BP-17R2	Wetting agent, defoamer, dispersant, emulsifier and <i>lubricity agent in synthetic metalworking fluids</i>	8	35°C / 95°F
ACC BP-17R4	Wetting agent, defoamer, dispersant, emulsifier and <i>lubricity agent in synthetic metalworking fluids</i>	7-12	46°C / 115°F
ACC BP-25R1	Wetting agent, defoamer, dispersant, emulsifier and <i>lubricity agent in synthetic metalworking fluids</i>	N/A	29°C / 84°F
ACC BP-25R2	Wetting agent, defoamer, dispersant, emulsifier and <i>lubricity agent in synthetic metalworking fluids</i>	6.3	29°C / 84°F
ACC BP-25R8	Dispersant, emulsifier and intermediate for esters	N/A	45°C / 113 °F
ACC BP-31R1	Water insoluble surfactant, imparts foam control to dispersants and used extensively in <i>metalworking fluids</i>	1	24°C / 75°F

AMIDES

Product	Description	Applications
TAS DL-350	1:1 Amide of Tall oil Fatty Acids and a primary amine Co-emulsifier for mineral oils Provides alkalinity and corrosion protection Good lubricity	Synthetic, semi-synthetic fluids, soluble oils <ul style="list-style-type: none"> • Machining • Stamping and drawing
TAS DL-405	1:1 Amide of Rcinoleic Acid and a primary amine Co-emulsifier for mineral oils Good alkalinity and lubricity Low Free Amine - Low VOC	Synthetic, semi-synthetic fluids, soluble oils <ul style="list-style-type: none"> • Machining • Stamping and drawing
ACC DT-934	1:1 DIPA amide of Tall Oil Fatty Acids Co-emulsifier for mineral oils Good Lubricity , Good reserve alkalinity	Synthetic, semi-synthetic fluids, soluble oils <ul style="list-style-type: none"> • Machining • Stamping and drawing
ACC DT-995	2:1 DIPA amide of Tall Oil Fatty Acids Co-emulsifier for mineral oils Good Lubricity , Good reserve alkalinity	Synthetic, semi-synthetic fluids, soluble oils <ul style="list-style-type: none"> • Machining • Stamping and drawing
TAS DL-960	1:1 DIPA amide of Fatty Acids of Triglycerides Co-emulsifier for mineral oils Good Lubricity, No free Fatty Acid	Synthetic, semi-synthetic fluids, soluble oils <ul style="list-style-type: none"> • Machining • Stamping and drawing
TAS DLO-965	1:1 DIPA amide of highly saturated Fatty Acids of Triglycerides Co-emulsifier for mineral oils Superior Lubricity, No Free Fatty Acid	Semi-synthetic and soluble oils <ul style="list-style-type: none"> • Machining • Stamping and drawing

SPECIALTY AMINE

ACC CE-20	Ethoxylated (2EO) Cyclohexylamine	Biopotentiator Extends MW fluids sump life
------------------	--	---

BLENDED LUBE PACKAGES

TAS LUBE 600	Water soluble Lubricant Package Works in conjunction with TAS COR 210	Formulation of: Premium synthetic fluid suitable for machining: Aluminum, Steel and Titanium
TAS LUBE 640	Self emulsifying Lubricant Package Works in conjunction with TAS COR 210	Formulation of Premium semi-synthetic fluid suitable for machining: Aluminum, Steel and Titanium



Advanced Chemical Concepts, Inc.

Contact us:

Advanced Chemical Concepts
7050 Engle Rd. Suite 103; Middleburg Hts., OHIO 44130, USA
Phone: 1-216-221-3952 - Fax: 1-216-221-4291

www.advancedchemicalconcepts.com

Email: customerservice@advancedchemicalconcepts.com