

# **GRIND SAFE**

## **SYNTHETIC GRINDING FLUID**

### **PRODUCT DESCRIPTION:**

Grind Safe is a nitrite-free, oil-free synthetic chemical fluid specifically designed for high-speed grinding operations on most metals.

### **NITRITE FREE:**

Safety is always a concern. Since nitrite is known to contribute to the formation of nitrosamines (a suspected cancer-causing agent or carcinogen), Grind Safe was formulated without nitrite to provide maximum performance and worker safety.

### **SAFE FOR OPERATOR & THE ENVIRONMENT:**

Grind Safe does not contain nitrites, nitrates, phenols, PCB's, PTBB's, CFC's, MEA, DEA, heavy metals, phosphates, chlorine, sulfur or any other raw material that either EPA or OSHA consider hazardous to the environment or to the individual. The product is crystal clear to assist in visibility. Grind Safe is mild and non-irritating to the skin, odorless and non-flammable.

### **ELIMINATES FOAMING AND MISTING:**

Non-foaming Grind Safe is formulated to eliminate foaming and misting problems in high-speed grinding operations.

### **EXTENDS WHEEL LIFE:**

Grind Safe contains selected ingredients to increase wheel life, improve surface finish and help prevent wheel loading.

### **MULTI-METAL SAFE:**

Grind Safe contains superior corrosion inhibitors to provide corrosion and stain protection on cast iron, steel, aluminum, brass, copper, Inconel, Hastelloy and most other modern alloys.

### **CONTROLS RANCIDITY:**

Formulated with high quality bacterial resistant raw materials, Grind Safe provides excellent rancidity and odor control.

### **COMPLETELY RESOLUBLE RESIDUE:**

Grind Safe leaves a completely water resoluble film on the machine and parts for rust control. No gummy, sticky, tacky, concrete like residue to build up to tie up machines and create excessive maintenance costs.

**EXCELLENT FILTERABILITY:**

Grind Safe works extremely well with diatomaceous earth, positive media, cyclonic and settling type filtration units.

**WHERE TO SELL:**

Due to the safety of Grind Safe this is an excellent product to sell to the large metalworking manufacturers such as General Motors, Ford, Chrysler, etc. Grind Safe was formulated so that there are no ingredients, which would be prohibited by any of these large metalworking facilities in the foreseeable future, and should meet all of their specifications for some time to come.

Along with being an excellent grinding compound, Grind Safe is an excellent short-term, inside storage rust preventative. A 10% solution of Grind Safe can either be sprayed on the parts or the parts can be dipped in a solution of Grind Safe to provide rust and corrosion protection on steel, cast iron and many other metals as long as the parts are stored inside.

**DIRECTIONS FOR USE:**

A concentrate designed to be diluted with water, Grind Safe forms a clear solution in a wide range of water temperatures and hardnesses.

1. To insure a uniform solution, mix Grind Safe with water at the appropriate concentration in a separate container. For most grinding operations, Grind Safe should be charged at a 20:1 (5%) concentration.
2. Agitate solution until thoroughly mixed.
3. Add the mixed coolant to the cleaned sump.
4. **Makeup:** For most high-speed grinding operations, add makeup to Grind Safe at approximately 1/3 the concentration desired in the machine. For example, starting concentration of 20:1 requires 50:1 makeup. Always add **diluted** solution as makeup. Never add plain water to the machine sump.

**NOTE: TO PREVENT ANY WHITE DISCOLORATION WHEN USING GRIND SAFE ON GALVANIZED PARTS, BE SURE CONCENTRATION IS 20:1 OR STRONGER.**

Formula for determining Total Volume by Gallons

$$\frac{\text{Width} \times \text{Length} \times \text{Height (in inches)}}{231} = \text{Total Sump Capacity in Gallons}$$

### RECOMMENDED STARTING CONCENTRATION

For most grinding operations, Grind Safe should be charged at a 20:1 (5%) concentration. Grind Safe can also be used on light duty machining operations for the easier to machine metals. The concentration for this should be 20:1 (5%).

Grind Safe Dilution Ratio vs. Refractive Index*	
5-1	6.0
10-1	3.0
15-1	2.3
20-1	1.5
25-1	1.2
30-1	0.9
35-1	0.8
40-1	0.7
50-1	0.6
*American Instrument Model 10440 Industrial Fluid Tester	

#### PACKAGING:

Grind Safe is available in tank wagons, 330-gallon reusable totes; 275-gallon, DOT-approved totes; recyclable HDPE (High Density Polyethylene) 55-gallon drums and 5-gallon pails. Label copy is available in both English and Spanish.

**Be sure to read all Directions, Precautionary and First Aid Statements on product labels before use of this or any IPG/Spartan product. Material Safety Data Sheets for all IPG/Spartan products are available from your authorized IPG/Spartan distributor.**

#### GUARANTEE:

Spartan's modern manufacturing and laboratory control insure uniform quality. If dissatisfied with performance of product, any unused portion may be returned for credit within one year of the date of manufacture.