

HOMEMADE TANNERITE

Note: I do not use explosives or pyrotechnic items myself, therefore I can NOT verify, vouch for or endorse anything stated below. As far as legality: DO YOUR HOMEWORK WELL!!! As far as usage: doing anything illegal or even stupid with explosives is a one-way ticket to heartache and financial ruin.

The below information is for educational purposes only. I take no responsibility for its contents. I am not a lawyer or an expert. So if it doesn't work, or you get in trouble with the law it's your own fault. Do not email me questions about this.

Well after a week of people begging me to post the recipe to a "reactive target" I decided to type this up. I was going to have pictures and suppliers listed but the demand for me to post it has prevented me from finishing what I had planned.

This reactive target is very similar to a name brand version already popular to the shooting community. They share some similarities and some differences. My version does not produce as much smoke and only works in enclosed containers of about 10 ounces or more. The trade off is that mine produced a bright flash, which looks cooler.

This reactive target is similar to the popular commercial version in that it's a binary explosive. Which means it's made up of two parts, and why it is legal to own.

You must follow all the below rules or else you will be in violation of the law.

Rules:

1. The two parts must be stored and transported separately (in different containers).
2. Once you mix them together you must use them immediately. You cannot mix them together and then drive to the shoot site or store them. This is why it's legal to use this mixture. When the two parts are stored and transported separately it is legal. However once you mix them together it is an explosive and must be used on site.
3. Use of the explosive must not harm any one or any thing (except for targets at the shoot site) or be used in any way that is unlawful.

Ok now that's out of the way below is the mixture.

95% AN 5% AL by weight

AN = Ammonium Nitrate
AL = ALUMINUM POWDER

AN can be found online or at a local agricultural/fertilizer store. It comes in 50lb bags at about 0.27-0.33 cents a pound. Very cheap. Make sure you get the bags marked as **34-0-0** and NOT urea nitrate.

When you purchase the AN in this form it's coated with a some stuff that allows it to release slowly so you must prepare it for use. This is very easy to do.

Go purchase a cheap blender (actually buy 2) at Wal-Mart for \$13 bucks.

Next fill the blender about halfway and turn it on. Grind the stuff up until it's about the consistency of table salt. Since every blender is different you will have to experiment with the correct setting to get it correct.

Since AN is actually pretty stable until around 840 degrees Fahrenheit the heat generated in the blender will not set it off. But to be safe do this in a well ventilated area with NO open flames.

Once its ground up I recommend you purchase some of those re-sealable paint buckets sold at Wal-Mart for a few bucks that are air tight.

Store it in this because it is hydrosorbic, meaning it sucks up the moisture from the air. You can tell if it's absorbed moisture from the air if it is clumped together in hard clumps. If this happens break the clumps apart and dry it out.

Now the AL is just as easy to prepare. You can find it online really cheap at about \$7.00 a pound. You want to purchase it in 300-600 mesh but you can save some money by purchasing it in meshes less than 300 and grind it up your self with the second blender you purchased.

It's a good idea not to use the same blender you used for the AN because it can cause contamination.

To grind up the AL fill the blender up about half way. You want to get it to a very fine powder like flour. Since every blender is different you will have to see what power setting works the best.

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Now that you have your two containers one with AN and the other with AL its time to go to the range. Once there to mix it together you are going to need a kitchen scale. You can find these at Wal-Mart cheap.

Start with the following to make sure it works:

100g AN mixed with 5g AL

Using a 20-ounce coke bottle with screw on top works best. Pour the amounts into the container and shake them up until they are mixed together. Remember once you mix them together you must use them at the site. You cannot drive or store the stuff mixed together.

Also remember the formula for mixing:

$$X * 0.05 = Y$$

X = Weight of AN

Y = Weight of AL to mix with that amount of AN

50 pounds of AN = 22,679.6185 grams, so using the above formula:

$$22679.6185 * 0.05 = 1,133.980925$$

1133.980925 grams = 2.5 pounds of AL

So for every 50lb of AN you purchase you will need around 2.5lb of AL.

Now once the stuff is mixed the only way you can set it off is by shooting it with a .223 or above rifle or a number 8 blasting cap. Don't try setting it on fire, it makes a big gooey mess and around 840 degrees Fahrenheit nasty things can happen. Once you have the stuff at the place you want to shoot it get back about at least 100 yards. Have fun.

Ok below are some places I found to get the materials online.

E-bay has lots of people selling Aluminum Powder, this is probably the best place to get it.

Ammonium Nitrate can be hard to find locally if you don't live in a state that is primary agricultural. I found it was best to call around to local farm supply stores and ask. If they don't carry it, ask them if they know any one who does. So long as you are not purchasing the stuff in huge amounts most people pay no mind.

You can purchase the stuff online, but shipping can be expensive to some areas.

This place has the stuff, the link goes to 50 pound bags for like \$12, their online order cart didn't work for me. But you can call and order it that way with a credit card. Remember you want bags of 34-0-0 fertilizer.

www.horthippo.com

This is 100% legal as per the ATF.

The home brew version is a tad be less powerful/sensitive then the actual stuff. The reason why is I leave out the most dangerous and expensive part. Every hit I have had with a 223 had made it go BOOM!

Basically its still the same binary explosive and the same rules apply

Tools you will need:

A cheap ass blender from wall mart 13\$

A scale that will do Grams and go up to at least 5lb's "nice digital scales are on eBay for 10 to 15\$

Some 5-gallon paint buckets from home depot with airtight lids "to store the ammonium nitrate"

Call around to your local farm Co-op's for 50lb bags of AMMONIUM NITRATE 34-0-0 cost is from 9 to 15\$ a bag.

You can buy it online from places like this, but shipping will make it 50\$ a bag.

It MUST be AMMONIUM NITRATE and not any other type. That means NO urea nitrate or ANYTHING ELSE!

Second thing you need is powdered Aluminum (German Dark/black) (ultra fine dust)

An ultra fine (around 2 micron particle size).

Some times you can get a good deal on it from eBay but finding it on there can be hard. If not try places like this:

<http://www.unitednuclear.com/chem.htm>

<http://www.skylighter.com/mall/chemicals.asp?Sort=A>

Or any rocketry or fireworks supply sites.

The formula is 95% AN to 5% AL by weight. So for 100 grams of AMMONIUM NITRATE you need 5 grams of Aluminum powder. <http://www.google.com/search?hl=en&lr=&q=5%25+of+100>

I do run it a bit lean at 4% and it still works fine.

I use plastic pop or water bottles to hold it..

The AN comes in "prill" form, little round BB's.

Fill you container with the prill then pour it into the blender and set it to high and grind it till its dust, "about 30sec to 1 min"

Pour it back into the plastic bottle and seal it TIGHT. This stuff sucks up water fast and water will kill it.

Just like tannerite, don't mix in the Aluminum till your ready to use it.

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i decided to tryout the directions for making homemade tannerite. It calls for 34-0-0 fertilizer (ammonium nitrate). All I found at the local feed store was 33-0-0, which listed urea, ammonium sulfate, diammonium phosphate, and a few others as ingredients. The bag did not say ammonium nitrate on it. Will this have the same results? Please don't lecture me about safety and legalities. I plan to do this safely and lawfully.

Originally Posted By XXX:

... urea, ammonium sulfate, diammonium phosphate, and a few others as ingredients. The bag did not say ammonium nitrate on it. Will this have the same results?

Negative. Those are all very stable chemicals that AFAIK have no use as explosives.

This site listed 33-0-0 and 34-0-0 as ammonium nitrate--that's what got me hoping.

This place sells lab grade ammonium nitrate, but it's kind of expensive. They also sell the powdered metals you'll probably need too.

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XXX,

Since the Oklahoma City bombing, ammonium nitrate is no longer widely

available on store shelves like it used to be. You need to follow a strict paper trail and most is bought in ton/multi-ton quantities by farmers. You can still buy it from chemical supply companies but you will be paying \$4/pound. The material from the companies is, however, much purer and has no additives. I don't know if in the end you will be paying more to make it yourself or not. You can try these companies:

www.firefox-fx.com/ChemA.htm

www.pyrotek.org

Interesting forum I found on Google:

[The Explosives and Weapons Forum](#)

Tannerite Discussion: www.roguesci.org/theforum/archive/index.php/t-294

Someone mentions formula for another type of impact explosive, similar to Tannerite...

Ammonium Nitrate Powder with AP for the oxidizer. 95% by weight

Then add Aluminum Powder 5% by weight, and go boom....the Zirconium and Titanium are added to make a bright flash.

Mix some up in a small milk jug...It'll cost about \$.79 for a pound of the stuff....enjoy.

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But where do you get the ammonium nitrate powder?

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<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=2568&item=5952760615&rd=1>

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Just like tannerite, don't mix in the Aluminum till your ready to use it.

Hate to spoil the party but most NH_4NO_3 is modified prill. It has sufficient water to prevent its use as an explosive. You will know it when you see it as it has clay added to prevent caking, something wet 34-0-0 does. Its no longer white but yellow-tan or grey.

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One of the target patents they mention refers to Potassium Chlorate & Sulfur. Real bad ju-ju!! Here is some authoritative information from XXX on that mix. Don't fuck with it!

CHLORATE-SULFUR DANGERS: REDUX

We keep seeing orders come through here for various combinations of chemicals including potassium chlorate and sulfur. I feel compelled to write this, in the purely selfish interest of keeping you alive long enough for us to be able to part you from the rest of your ill-gotten gains. If, however, after you read this, you still insist on blowing yourself up, I thank you in advance for assisting the rest of us in our never-ending quest to improve the gene pool and furnish yet another candidate for the annual Darwin Awards.

Now, there are a few reasons, and only a very few, that someone might legitimately need to combine potassium chlorate and sulfur (or sulfur-containing chemicals like antimony trisulfide). But I suspect this is not the case for most of you who are ordering these two chemicals. Rather, I suspect that some of you have read recipes for flash mixes on the internet that contain these two chemicals. A quick search on Google just now revealed any number of sites where various recipes using these two ingredients were found. In fireworks making, we call some combinations "death mixes." Mixing potassium chlorate and sulfur could easily qualify as a death mix.

I should inject here that potassium chlorate is not the same as potassium perchlorate. I will not go into the chemistry of them here. But they are not the same chemical.

If you are an inexperienced pyro, reading this may save your life, as you know it. Put quite simply, the very process of mixing sulfur and potassium chlorate can create a significant explosion. During the process of mixing and afterward, the two chemicals become highly friction and impact

sensitive, and can produce an incredibly violent explosion. This is so dangerous a mix that the use of chlorates in commercial fireworks has been banned in most places in the world, including the US, for longer than most of us have been alive.

But I know there are those among you, who, after reading this, will still want to try mixing them. If you insist on finding out the hard way what can happen, here is the procedure I use to train new people working in our chemical packing room. Do this outdoors away from anything that might be accidentally ignited.

I place a small piece of potassium chlorate, about half the size of a green pea and place it on a stone or concrete surface. Then I place an equal amount of sulfur on top of it. I don't bother to mix them; it isn't necessary for this demonstration. Then, with a hammer, I rub the two together. They will pop and crackle immediately. Then I hit the two with the hammer. The resultant explosion is as loud as a firecracker, loud enough to sometimes leave my ears ringing.

Once you have experienced this demo first-hand, you cannot even begin to imagine how violent an explosion would result from mixing a couple of ounces of the same combination.

Please folks, if you insist on toying with such flash, find alternatives to sulfur and chlorate mixtures.

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You can wash out the bentonite clay using methanol, which can be bought at hobby stores. It's used as RC car and plane fuel.

Water (and methanol) can be evaporated out of the AN by drying it in an oven. AN's melting point is 250 F, so water can be evaporated out of it pretty efficiently.

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Careful with this method. Most methanol in hobby stores is actually glow plug engine fuel and contains 5-15% nitromethane. The methanol will evaporate, leaving nitromethane and castor oil (or synthetic). Nitromethane greatly increases the brisance of AN and can sensitize it.

You also need to be incredibly careful with heating AN. The Texas City disaster of '46 happened because a ship captain tried to fight a cargo hold fire that had AN by shutting the hatches and flooding the hold with steam. The steam heated the AN, sensitizing it. Over 600 people were killed, some from the resulting mini-tsunami. Windows in Houston, some 80 miles away, were broken.

<http://taipan.nmsu.edu/mvpfpp/nitrogen.htm>

<http://www.unitednuclear.com/>

<http://www.firefox-fx.com/ChemA.htm>

<http://www.pyrotek.org/>

<http://www.roguesci.org/theforum/archive/index.php/>

<http://www.roguesci.org/theforum/archive/index.php/t-294>

https://www.horthippo.com/control/product/~category_id=JRJFertilizerBasic/~product_id=740100