# **Picric Acid Home Maunufacture**

How to produce picric acid (2,4,6- trinitrophenol) at home from common ingedients.

Note that english is not my first language. I don't care about spelling or grammar - but i've done my best.

This method is based on the decriptions in "Improvised Kitchen Plastic Explosives II" by Tim Lewis using acetylsalicylic acid, sulfuric acid and either potassium or sodium nitrate. The ratios given there are 40g acetylsalicylic acid, 150ml sulfuric acid and 77g potassium or 58g sodium nitrate = 1:3,75:1,9 - acetylsalicylic acid: sulfuric acid: potassium nitrate

First time i attemted to produce PA (picric acid) i used the ratios mentioned in "Kitchen Improvised Blasting Caps" by Tim Lewis and Mega's site. They suggest to use 100 crushed aspirin tablets/37,5g (very vague but some people mentioned the acetylsalicylic acid content to be 0,375g per tablet - maybe standard in the US?), 700ml sulfuric acid (!) and 75g of either potassium or sodium nitrate. I think this is too much sulfuric acid: when i poured the nitrated mix in the crushed ice & water it warmed so much all the ice melted and the shit was still warm. The yield was ca. 8g from 30g acetylsalicylic acid:-(

#### acetylsalicylic acid purification

- 1. 120 aspirin tablets each containing 500mg acetylsalicylic acid and 50mg starch & microcristalline cellulose were crushed to powder.
- 2. This powder was dumped in 600ml of 60 °C ethanol (denaturated brand with 1% butanone) causing the acetylsalicylic acid to dissolve.
- The hot alcohol/acetylsalicylic acid solution was filtered through two coffee filters.
- 4. The normally clear liquid (a little brown/yellow coloring resulted from using non-bleached filter paper) was evaporated on a boiling waterbath in a 2l steelbowl. This took about 80 minutes.
- 5. The result: pure, crystalline acetylsalicylic acid.
- 6. The acetylsalicylic acid crystals were spread in a glass dish and heated in oven at 70 °C for 30 minutes to evaporate the remaining ethanol. Result: 56g (60g theoretically)

# <u>nitration</u>

- 7. Then the 56g acid crystals were put in a 500ml erlenmeyerflask containing 220ml concentrated sulfuric acid 96%.
- 8. The acid was heated to dissolve the crystals. (Temp. around 70 °C)
- 9. 220ml sulfuric acid failed to dissolve all 56g acetylsalicylic acid. Small portions sulfuric acid were added until all acetylsalicylic acid was dissolved. Finally a total of 330ml sulfuric acid was used.
- 10. The dark red solution (~400ml) was poured in an 1000ml erlenmeyerflask. To prevent spreading clouds of NOx a 100ml erlenmeyerflask was put upside down in the mouth of the 1000ml erlenmeyerflask and only removed for nitrate addition.
- 11. The addition of 115g dry potassium nitrate (outside) was carried out in small portions using a folded piece of paper. This took 75 minutes. (The color of the solution changes with the addition of the nitrate from very dark red to an yellow/orange tone.)
- 12. After all potassium nitrate was added the solution was allowed to cool to room temperature. The hot liquid was clear, while cooling many tiny yellow crystals precipated until it was a more or less thick slurry. (similar to AP slurry)

# precipitation & purification

- 13. A 1,5l glass standing in a plastic bowl was filled with 750g fine crushed ice (distilled water) and 250ml cold distilled water.
- 14. The acid was poured slowly into the ice/water mix. Because the acid was poured not slowly enough a \*big\* foaming started and some of the yellow foam and liquid was lost by overflow. SHIT i wanted to know the yield of this method! A little red-brown NOx gas was released too, i think it was trapped in the foam.
- 15. Most of the crystals collected at the bottom of the glass after 20min, ca. 700ml liquid were carefully poured off and replaced by 500ml cold distilled water.
- 16. After waiting a few minutes for the crystals to settleagain, the content was filtered through a coffee filter. The resulting liquid was disposed and the crystals scooped out of the filter. (No metals here, use wood or plastic!) Result: 120g of wet picric acid with unknown water content.
- 17. Now the 120g picric acid crystals were dissolved in 300ml boiling distilled water and then cooled to 25 °C. Again filtering through a coffee filter the crystals were scooped out of the filter and placed in a pyrex dish.

# drying & further processing

- 18. The pyrex dish with the PA was placed in an oven set to 80 °C, which was checked with a digital thermometer. (most of the time the temp. was around 75 °C) It remained there for 120 minutes.
- 19. The total amount of dry PA was 44g. What the fuck? There where 76g water in the first filtered crystal portion??? Or are there so much impurities that dissolve in the washing??? I filtered at ca. 25 °C, perhaps cooling it down to let's say 10 °C would increase the yield a little bit...
- 20. 4,4g white candle wax and 2,2g vaseline (peroleum jelly) were molten in a hot water bath, poured on the dry PA and kneaded in (suggested in *KIPE II* to produce a plastic explosive). However it didn't get very plastic although it's possible to form little balls that don't crumble. But without a container it will not hold together in larger quantities.
- 21. The 50g explosive mix were put in a pill box and fired with a 2g AP detonator. Very loud, but not as impressive as i thought. Maybe the wax shit wasn't the best idea, it becomes a little insensitive.



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