

Read fully before opening any of the product.

This kit contains:

These instructions, test-tube & stand, protective gloves and individual reagent bottles some may contain DANGEROUS, corrosive and toxic liquids (in very small quantities though & within high grade/strong plastic bottles). Each bottle is individually sealed (Postal requirement) and contains Vermiculite (absorbent material used when shipping such products).

On receipt, after inspection: Make sure you that the screw tops are tightened firmly and store vertically on a protected surface.

Note: As a safety precaution check to make sure there is no visible liquid in any of the Reagent compartments. If there is do not open and contact us.

Storage: Ideally you need to keep the reagents in a cool (fridge not freezer) dark place with the lids on away from children etc.

Zimmermann Reagent (Reagent A + Reagent B)

It is a two part test. Reagent A and Reagent B, and as there are two reagents that require proper mixing this is better performed using a test-tube.

Add one, or 2, drops of each reagent. Swirl gently a couple of times (lid on for safety) to assist in mixing the reagents & note the initial colour of the resultant liquid (chalky white). Then add the test substance (~ 10 salt sized grains) to the test-tube and swirl again applying a little heat (place test tube in warm/hot water for about 10 seconds or in steam (lid on with finger gently over top of lid) for about 2 seconds). If you do not warm/heat the test tube the reaction will take several minutes and will not be as distinct especially if the reagents are stored in a fridge prior to use.

The reagent works by forming a reddish-purple Meisenheimer complex at C3 for diazepam with a carbonyl at C2 and an alkyl group at N1. Without these groups it is not possible to form the methylene compound which reacts with dinitrobenzene but triazolo compounds may react.

The development of either a red–purple/violet or pink colour indicates the presence of benzodiazepines in the substrate.

Expected colourmetric results:

Zimmerman's reagent produces red-violet/purple colours with keto-benzodiazepine derivatives such as diazepam (Valium), rohypnol (Flunitrazepam) fludiazepam (Erispan) and flurazepam (Dalmane), Benzyl-methyl ketone (P2P/phenylacetone), Acetone, Methcathione, Oxycodone,

Marquis Reagent test for Benzodiazepines

Wear protective clothing/eye wear/gloves (heat resistant when dealing with steam/hot surfaces).

Note: Use the peg to hold the test-tube at its base so it can stand upright to assist when adding the substance and Marquis Reagent and do it on/over a ceramic surface e.g. a plate (preferably non patterned) as heat & chemical resistant. Slide the peg on from the base whilst pinching open the peg such that it sits in the roundish aperture.

Add the substance to be tested to the test-tube (tilting test-tube away from your face in case there is a reaction) then add 2 or 3 drops of Marquis Reagent SLOWLY i.e. one drop then pause to see if there is a reaction if there is wait for it to subside then add another. Once all 2 or 3 drops are added to the test-tube place the blue plug partially in the test-tube.

Boil a kettle with a small amount of water in. Once boiled pour about half an inch of water in to a clear/Pyrex glass or cup/mug.

Carefully place the test-tube in the hot water and leave for about 60 seconds.

The colour change should be quite quick once the liquid has heated a little, going dark/black indicating the presence of benzodiazepine.

Clean any spills of Marquis Reagent etc with water and baking soda (if available). Use kitchen towel to dry surfaces. Once the test-tube has cooled down (60 seconds – blowing on it may assist) wash out with warm water considering all the above safety aspects.

Marquis Reagent colour responses (adulterant check): Amphetamine: Strong Reddish Orange > Dark Reddish Brown, Benzphetamine: Deep Reddish Brown or Red > Brown, Codeine: Very Dark Purple, Heroin: Deep Purplish Red, LSD: Olive Black, MDxx: Purple > Blue – Black, Methamphetamine: Deep Red Orange > Dark Red Brown or Orange > Brown (slow), Morphine: Dark Grayish Reddish Brown or Purple – Violet, PMA: No reaction/Light Green or Effervescence,.

For a more detailed list of Marquis Reagent colour responses (**all ~110**) please look at the Combined Reagents Tables on the Test Result Tables menu on our website (<http://www.safetest4.co.uk/combined-reagent-tables>)

Please read our Terms & Conditions on www.SafeTest4.co.uk for any additional information and "Latest Info/changes to website/products" (on Home page). Always read the latest version (version number is at top left of page) of the instructions as important safety info etc can change from when this version was provided. Check on the website at the bottom of the Overview page for the latest versions (downloadable).