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| **SCHOOL OF CHEMISTRY, UNIVERSITY OF BRISTOL****COSHH ASSESSMENT** This Assessment must be completed **jointly** by the research Supervisor (or Designated Assessor) and the research worker. For help in the completion of this form, see the procedure described on the [Safety Website](https://www.ole.bris.ac.uk/ultra/organizations/_250200_1/cl/outline). A copy of the approved form should be displayed close to where you are undertaking the process, for the duration of the activity. |
| **Name of Supervisor / Designated Assessor Name and Status of Researcher Lab. No.**Neil Fox / James Smith Catherine Monk, PhD Researcher  |
| **Hazardous substance to be used Amount of substance to be used** Potassium Hydroxide ~21g, to make 22wt% |
| **What process/procedure/preparation requires the use of this substance?**KOH etching of silicon |
| **Give link or reference to Safety Data Sheet (SDS) for this material here:** Potassium Hydroxide: [484016 (sigmaaldrich.com)](https://www.sigmaaldrich.com/GB/en/sds/sigald/484016?userType=undefined) |
| **Does Bretherick’s indicate cross-reactivity of this material with other components of the reaction?** **If yes, give details (including entry number(s)) below.**No |
| **Main known (or expected) hazards associated with the use of this substance and possible routes of exposure:** H290: May be corrosive to metals H302: Harmful if swallowedH314: Causes severe skin burns and eye damage**Does the substance have a Time Weighted Average (TWA) or Short-Term Exposure Limit (STEL)**STEL: 2mg/m3**If the substance is a respiratory or skin sensitiser, do you or anyone sharing the same working space have a history of asthma or skin contact allergies?**Not a skin sensitiser**If yes, additional measures to manage exposure may be required and can be assessed using the individual risk assessment template here:**[**https://www.bristol.ac.uk/safety/media/gn/sensitisers-allergens-ra-gn.docx**](https://www.bristol.ac.uk/safety/media/gn/sensitisers-allergens-ra-gn.docx)**Is the substance a carcinogen?****If yes, give its Category (1A or 1B):** No Data Available**If the substance is a carcinogen, you must read the** [**Carcinogen Use Information**](https://www.ole.bris.ac.uk/webapps/blackboard/content/listContent.jsp?course_id=_250200_1&content_id=_7270192_1) **and briefly justify its use below:** |
| **What control measures including personal protective equipment are required to handle the substance safely under the conditions in which it is to be used?** Wear gloves/lab coat/safety glasses. |
| **Are there any special training requirements before this substance is used?**No |
| **Emergency action in the event of**1. Spill: Ventilate the affected area and eliminate any sources of ignition. Volatile liquids may be absorbed onto absorption

granules available at the Fire Points or in the laboratory (have them replenished after use) and, as appropriate,transferred to a fume-hood to evaporate or to a suitable sealed container for waste disposal. In a well-ventilated areasuch as a laboratory, the best procedure may be simply to turn off sources of ignition, ventilate, evacuate and seal andsecure the room. For corrosive material neutralise first then dilute with water before mopping up. Solids should beswept up and disposed off via Chemical Waste.1. Fire or failure of services (e.g. electricity, fume-hoods): Use a dry powder or carbon dioxide extinguisher. In case of

fume hood airflow failure, close fume hood, evacuate and do not return until told it is safe to do so.1. If someone has inhaled chemicals, relocate them to fresh air. If the person is not breathing, administer artificial

respiration, and consult a physician.1. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower and consult

a physician.1. In case of eye contact: thoroughly rinse with ample water for a minimum of 15 minutes and consult a physician.
2. If swallowed: do NOT induce vomiting. Rinse the mouth with water and consult a physician.
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| **Waste disposal (for carcinogenic waste, a dedicated container is required. Include details of any quench etc needed prior to disposal )**Any waste or surplus to NON-CHLORINATED waste container. |
| **Additional relevant references, if any** |
| **Signature of Researcher: ........................................................................................... Date: ................****Signature of Supervisor / Designated Assessor: ...................................................... Date: ................** |

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| **The approval of the SSA is required (via** **chem-safety@bristol.ac.uk****), *in addition to the approval of the supervisor*, if the substance is in any of the hazard groups listed below** Does this assessment require approval of the SSA? If yes indicate all applicable categories below(**1**) Category 1A or 1B carcinogen(**2**) potentially explosive material (e.g. H2O2) (**3**) Category 1 pyrophoric (e.g. t-BuLi)(**4**) Category 1 toxin (e.g. NaCN)(**5**) Category 1 sensitizer. |