MOD Form 5011 – Control of Substances Hazardous to Health (COSHH) Risk assessment – Full Guidance Notes

Introduction

The MOD Form 5011 – COSHH Risk Assessment, is the preferred form to use when assessing the specific risks that arise from the use of COSHH, be it a specific product or products or working in areas with hazardous by-products such as sawdust. This form has been designed to make best use of Safety Data Sheets (SDS), COSHH information (on product labels), and to be user-friendly, following examples of compliance from the Health and Safety Executive.

Note 1: The term Material Safety Data Sheet may still be found in some references and documentation however following the adoption of the Globally Harmonised System (GHS) Safety Data Sheets (SDS) is the current and legally recognised term in the UK and Globally.

This risk assessment does not provide a quantitative level of risk, as the 5010 does, but the consequence of each hazardous event is to be taken seriously with the presumption that if there is a worst- possible outcome, that is to be prepared for.

Note 2: If more than 5 substances / hazards are used, then the user should make use of the COSHH Risk Assessment Extension form, available as a PDF and a Word Document. As many of these forms as is necessary can be used, but the field for the 'Extension No' must be correctly entered. For example, if there are 3 extension forms, each extension would be number 1 of 3, 2 of 3 and 3 of 3. These extension sheets duplicate Parts 2, 3 and 4.

PART 1 – ASSESSMENT ADMIN

This section is used to complete the

Assessment Title. Enter a relevant title for your assessment that will make it easy to reference by name.

MF5011 Ref No. There is no specific set referencing guideline for COSHH risk assessments, so enter a reference that is appropriate for your working location.

Date Approved. The date that the COSHH Risk Assessment was approved by the Authorising officer / commander, manager or accountable person.

Valid Until. This is the last date that the risk assessment will be valid. To make sure that you can continue with the task, review and update the risk assessment before this date and adjust the field accordingly.

Unit / Establishment / Site / Platform; Section / Building; Specific Location. This should be self-explanatory so best to show as an example:

Unit / Establishment: RAF St Mawgan
Section / Building: Station Workshops
Specific Location: Paint Bay

Process or Activity. Consider this field as a question of "Who is doing what, and what are they using?" for example:

"Workshop personnel using varnish to finish wooden trophies"

Assessor and Authorising officer / commander, manager, accountable person. The person completing the risk assessment and a relevant person with supervisory responsibilities for the area the activity is taking place in. This person does not necessarily have to be the assessor's manager.

Notes:

3. Where a form is printed off as a hard copy, then in addition to the person's name a signature is required to confirm the authenticity. Where the form is used purely as a digital copy then to make sure the authenticity and integrity of the data is not compromised you **must** create and use a Digital pdf signature as detailed in the Electronic Signature Guide.

4. Authorising officers, commanders, managers or accountable persons are to note that when they sign off the COSHH risk assessment, they are confirming that they are responsible for ensuring that the control measures to bring the risk to a level that is ALARP and tolerable have been satisfactorily met or otherwise.

5. Where additional control measures have been implemented as part of the COSHH risk assessment, they are considered from that point forward to be "existing control measures" for the duration of that activity and should be considered when conducting a review / new COSHH risk assessment for the same or a similar activity.

PART 2 - SUBSTANCE IDENTIFICATION

ID. Numbered sequentially. (On the extension sheet, this is blank for the user to continue numbering past 5).

Substance / Hazard. Something to identify the substance or hazard. If a specific substance, use a common descriptor for example paint, varnish, lubricant, fuel and so on. Also add the commercial name as stated on the SDS. If it is a hazard that has not come in a container, describe it suitably that it is identifiable for example metal swarf, soft wood dust, fibreglass and so on. It would be useful to also describe the hazardous event for example:

"Lubricant OMD90 coming into contact with skin or eyes."

Assessors **should** consider any physical hazards identified within the SDS, including flammability, explosivity, oxidising properties, reactivity, flash point, boiling point and other relevant physical or chemical characteristics.

Environmental and operational conditions that may influence these hazards **should** also be considered, including ambient temperature, humidity, ventilation, confined spaces, storage arrangements and geographic location.

Particular attention **should** be paid where substances may be used, transported or stored in conditions that differ significantly from those under which the SDS was originally prepared.

Route of Entry. Use the tick boxes provided to show the routes of entry to the body.

What harm, to whom and how? Detail who or what could be harmed and what harm could be caused, to who. Assessors **should** consider how the activity, workplace and environmental conditions may affect the potential for harm. For example, elevated ambient temperatures may increase evaporation of volatile substances, reduce the margin to flash point, increase the release of vapours, or alter the effectiveness of existing control measures.

For example:

What harm: Skin, eye or respiratory irritation and so on

To whom:

- Personnel
- Vulnerable persons
- Contractors
- Visitors
- Members of the public
- The environment

How: How will the substance / hazard be most likely to interact with the person / environment. For example:

- Chemical splashes
- Inhalation of airborne dusts
- Repeated skin contact
- Respiratory irritation increased risk for persons with pre-existing respiratory conditions

Note 6: It is appropriate to list under the 'what harm, to whom and how' column the 'how' by means of relevant H-statements, details of which can be found here.

COSHH Pictograms. Use the tick boxes to detail which COSHH pictograms are present on the products being used. If there are multiple products, tick all relevant boxes. If one or more extension sheets have been used, tick all relevant boxes for substances on those extension sheets as well.

PART 3 – EXPOSURE ASSESSMENT

ID. Numbered sequentially. (On the extension sheet, this is blank for the user to continue numbering past 5).

Primary Route of Exposure. Select the route of exposure that is considered most likely to result in harm during the activity being assessed. Whilst multiple routes of entry may be identified in Part 2, only the principal route should be selected here. This information should be used when determining appropriate control measures.

Possible Examples:

- Welding fume = inhalation
- Cleaning solvent = skin contact
- Sharpes contaminated with hazardous substances = injection

Quantity Used. A choice of Small, Medium or High.

Value	Example Amounts
Small	Grams or Millilitres.
Medium	Kilograms or Litres.
High	Multiple Kilograms/Litres, Containers, Bulk Storage, Tonnes or Cubic Metres.

Physical Form. Select the form of the hazardous substance when in use: Solid, dust, liquid, mist / spray, fume or gas / vapour.

Volatility. This is a measure of how readily a substance can become airborne and available for inhalation.

Information may be obtained from the SDS, including vapour pressure, boiling point and physical characteristics.

Descriptor	For Example
N/A	For solids and substances where volatility is not relevant.
Low	Little tendency to become airborne.
Medium	May become airborne during use.
High	Readily becomes airborne during use.

Duration Used. Record how long a person may be exposed to the substance during a typical occurrence of the activity. Assessors should consider exposure duration rather than total shift length. The times are also on the descriptors on the form.

Descriptor	Durations
Very short	Less than 15 minutes.
Short	15 minutes to 1 hour.
Medium	More than 1 hour, up to 4 hours.
Long	More than 4 hours.

Frequency of Use. How often is the activity conducted. The assessor should consider the activity being assessed rather than how often the substance is ordered, stored or delivered. The options are:

- Less than monthly
- Monthly
- Weekly
- Daily
- Multiple times a day

WEL / STEL. Record whether a Workplace Exposure Limit (WEL) or Short-Term Exposure Limit (STEL) applies.

This information can normally be found in Section 8 of the SDS.

Where a WEL or STEL exists, assessors should consider whether workplace exposure monitoring may be required.

Exposure Potential. Exposure Potential is an assessment of how likely personnel are to be exposed to the substance during the activity being assessed. Assessors should consider Quantity Used, Physical Form, Volatility, Duration Used, Frequency of Use and the Primary Route of Exposure when selecting an appropriate category.

Low

Typically characterised by:

- Small quantities;
- Solid materials or low-volatility liquids;
- Very Short or Short duration;
- Infrequent or Occasional use; and
- Limited opportunity for exposure.

Medium

Typically characterised by one or more of:

- Medium quantities;
- Medium duration exposure;
- Regular use;
- Potential generation of vapour, dust or mist; or
- Foreseeable exposure during normal activities.

High

Typically characterised by one or more of:

- Large quantities;
- Long duration exposure;
- Frequent use;

- Generation of dust, fume, mist/spray or vapour; or
- Significant potential for inhalation or skin exposure.

Where uncertainty exists between categories, the higher category should normally be selected.

PART 4 - CONTROL MEASURES

ID. Numbered sequentially. (On the extension sheet, this is blank for the user to continue numbering past 5).

SDS Control Measures. Use the tick boxes to show where there are First Aid, Fire Fighting, Accidental Release, Storage / Handling and Exposure Controls / PPE instructions in the SDS. As it is essential to use the SDS when completing this form, and to store the SDS with the COSHH assessment either electronically or physically, this information does not have to be duplicated. This information is generally found in Sections 4 – 8 in an SDS, otherwise will have the relevant section heading.

Workplace Control Measures. This is a free text box for the assessor to detail the current workplace control measures for working with this substance. Consider following the HSE principles of good control practice. More than a single control measure can be entered in this box. Industry Guidance on Respiratory Protective Equipment (RPE) Fit Testing can be found in the Health and Safety Executive document INDG479.

Additional Control Measures. These are for any additional control measures that the assessor thinks should be implemented to better control the risk but aren't currently in place yet. More than a single additional control can be added in this box.

Action by; Date; Checked by. The "Action by" column is for who is responsible for implementing the additional control measure(s); the "Date" is for the date the additional control is implemented; and "Checked By" is for who has made sure the additional control has been successfully implemented – this can be the process / activity manager or someone seen as an appropriate SQEP (Suitably Qualified and Experienced Person) to confirm effectiveness – different to the "Action by" person. Names and / or roles are able to be used here.

Other control measures. "Existing control measures" and "Additional action needed" columns are slightly different to "Workplace Control Measures" and "Additional Control Measures" in that if these are not relevant, they can be left blank or can be as simple as just entering "Yes" in "Action Taken" (for example – Supervision: Yes).

Thorough examination and test. This could be detailing for example; if work surfaces are examined, water pressure tested, ventilation checked and so on, along with engineering controls, such as LEVs and non-disposable RPE and so on.

Supervision. Is supervision required? This could be a binary response, or the assessor could go into more detail. Supervision might only be conducted when it's possible, or only conducted at specific intervals.

Instruction and training. This could be a binary response, but a better practice would be to detail or link to the specific instruction and training that is required.

Emergency plans. As above. If there are emergency plans in place, these can be linked or referenced.

Health Surveillance. If this is required, a short summary of what takes place can be entered. Refer to Chapter 14 - Health Surveillance and Health Monitoring of JSP 375, Volume 1 for direction and guidance.

Monitoring. This could be either personal health monitoring or workplace, to monitor the levels of substances in the air, in the body and so on. Refer to, Chapter 14 - Health Surveillance and Health Monitoring of JSP 375, Volume 1 for direction and guidance.

Vulnerable Persons / Additional Requirements. Consider whether any person or group may be at increased risk from the substances or activities being assessed. This may include New or Expectant Mothers, Young Persons, persons with pre-existing medical conditions, persons with known sensitivities or allergies, or any other individuals who may be disproportionately affected by exposure.

Where vulnerable persons are identified, assessors should determine whether additional control measures are required to adequately control exposure and record these within this section. The outcome of this consideration should be reflected within Part 5 - Assessment Conclusion.

PART 5 – ASSESSMENT CONCLUSION

Highest Exposure Potential Identified. Select the highest Exposure Potential (Low / Medium / High) recorded for any substance within the assessment, including any extension sheets.

Will Existing and Additional Controls Adequately Control Exposure? Consider all existing workplace controls and any additional controls identified within Part 4. Select "Yes" where these measures are considered sufficient to reduce exposure to a level that is ALARP and tolerable. Select "No" where further action, specialist advice or additional controls may be required.

Combined Exposure Risk. Consider whether exposure to multiple substances may create a greater overall risk than exposure to any substance individually.

Examples may include:

- Multiple substances affecting the respiratory system.
- Multiple substances sharing similar hazard classifications.
- Multiple substances used simultaneously.

Exposure Monitoring Required? Consider whether workplace monitoring is required to demonstrate adequate control of exposure.

This may be required where:

- WELs or STELs apply;
- Exposure Potential is Medium or High;
- Existing exposure levels are uncertain; or
- Specialist advice recommends monitoring.

Health Surveillance Required? Record whether health surveillance is required for personnel undertaking the activity.

Refer to Chapter 14 (Health Surveillance and Health Monitoring) of JSP 375, Vol 1 for further guidance.

Vulnerable Groups Identified. Consider whether additional controls are required for:

- New or Expectant Mothers;
- Young Persons;
- Persons with Pre-Existing Health Conditions;
- Persons with Known Sensitivities or Allergies; or
- Other vulnerable groups relevant to the activity.

Where no vulnerable groups have been identified, select "None Identified".

Overall COSHH Risk Rating. This is the assessor's overall judgement of risk after considering:

- Hazard severity;
- Exposure Potential;

- Existing control measures;
- Monitoring requirements;
- Health surveillance requirements; and
- Vulnerable groups.

Options:

- Very Low
- Low
- Medium
- High
- Very High

This rating represents the COSHH risk associated with the activity after existing controls have been considered.

Assessor's Justification. Provide a brief summary explaining:

- why the selected Exposure Potential is considered appropriate;
- whether existing and additional controls adequately control exposure;
- whether exposure monitoring or health surveillance are required;
- the reasoning behind the Overall COSHH Risk Rating; and
- any other factors relevant to the assessment.

This section should provide sufficient information for the Authorising Officer, Commander, Manager or Accountable Person to understand how the conclusions of the assessment have been reached.

PART 6 – REVIEW

There is space on the MOD Form 5011 for 3 separate review instances. Within each review, the following must be completed.

Review by date. This box should be completed at the end of the initial assessment and then at next appropriate review timeframe. This does not need to be a specific date and can just be a month & year. For example: Feb 26. Once the initial assessment is completed, the First review row should be completed. Following the first review, the Second review row box should be completed and so on (if adding additional reviews when using a 'Word version' of the form).

Date of review. The date on which the review has taken place.

Changes. Detail of what changes (if any) have been made to the risk assessment

Reviewed by. The person who has reviewed the assessment. (See note 2)

Authorising Officer / commander, manager or accountable person. The person who is confirming that they are responsible for making sure that any changes to bring the risk to a level that is ALARP and tolerable have been satisfactorily met or otherwise. (See note 2 and 3 above)

Reason for review

a. if an accident or incident has occurred;

b. when there has been a significant change in the activity or process (location, duration, quantity, substance change and so on), or there is a change in personnel for example, the operator or manager;

c. there is reason to suspect that the assessment is no longer valid;

d. upon direction (for example commander, manager, HSE and so on)

e. at a frequency proportionate to the risk, but normally not exceeding every two years.