



Australian Government

Department of Education, Employment and Workplace Relations

ICPSU211C Prepare ink and additives

Revision Number: 1

ICPSU211C Prepare ink and additives

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to prepare inks and additives in a range of printing processes.
------------------------	---

Application of the Unit

Application of the unit	This unit requires the individual to prepare ink and additives as required by the job specifications.
--------------------------------	---

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Select ink	<p>1.1. Inks, dyes and additives are selected according to job specifications</p> <p>1.2. Quality and suitability of inks, dyes or additives are checked and appropriate action is taken</p> <p>1.3. Inks and dyes are selected according to suitability of substrate, adhesion, physical and chemical resistance, and light fastness, drying method and print process</p>
2. Prepare ink	<p>2.1. Inks, dyes and additives are prepared according to OHS requirements, and manufacturer's/supplier's instructions with suitable precautions to minimise waste</p> <p>2.2. Correct colour and weight/volume of ink are mixed and prepared to match the requirements of the job specifications and the printing press to be used</p> <p>2.3. Formulation of the ink and the approved colour is appropriately recorded</p>
3. Store and handle ink	<p>3.1. Inks, dyes and additives are appropriately stored, handled and labelled according to manufacturer's/supplier's instructions to prevent damage and hazards to personnel</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- OHS in relation to operating machinery such as safely switching off machinery before cleaning is started
- communication of ideas and information by correctly labelling inks and additives
- collecting, analysing and organising information by accessing and using MSDSs and data on ink/additive formulation to ensure efficient production
- planning and organising activities by selecting appropriate inks and additives prior to preparation
- teamwork when maintaining the production process in association with other staff
- mathematical ideas and techniques by calculating weights and volumes and dilution factors
- problem-solving skills by identifying problems in formulation and making appropriate adjustments
- use of technology by using manual and electronic measuring equipment

Required knowledge

- selecting inks and additives to match process and job requirements
- suitability of the ink determined for the particular process
- characteristics of the chosen ink matched to the substrate
- ink adhering to the substrate
- physical, chemical and light or colour fastness of the ink
- preparing inks and additives
- OHS concerns related to the preparation of inks and additives
- correct handling procedures
- correct weight/volume required
- methods that are available to check and adjust ink colour and consistency
- quality of the ink or additive is up to the standard required
- matching colour
- OHS concerns related to the matching of inks and additives
- effect that lighting conditions have on colour matching
- compatibility of being mixed
- correct colour for inks
- storage, handling and labelling of inks and additives
- MSDSs for this ink system that is at hand
- environmental conditions that are relevant to the storage of inks and additives
- conventions that should be adhered to when labelling mixed inks
- method of disposal of inks, solvent and solvent rags

REQUIRED SKILLS AND KNOWLEDGE

- information sources
- manuals, safety and other documentation that are relevant to this task and where are they kept
- information that is included in these documents

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • correctly preparing ink and additives as required by job specifications • demonstrate an ability to find and use information relevant to the task from a variety of information sources • prepare at least TWO lots of inks or additives to match a colour sample and specific end-use requirements according to workplace specifications and the listed Performance Criteria • evidence for assessment may be gathered from assessment of the unit of competency alone or through an integrated assessment activity.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • assessment may take place on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment • inks and additives.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>

Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<i>Quality standards</i> may include:	<ul style="list-style-type: none"> • should meet client requirements and enterprise and industry standards.
<i>Type of ink, substrate</i> may include:	<ul style="list-style-type: none"> • range of inks and substrates commonly used in the printing industry.
<i>Colour matching systems</i> may include:	<ul style="list-style-type: none"> • commonly used matching procedures.
<i>Type of equipment</i> may include:	<ul style="list-style-type: none"> • range of manual and electronic measuring equipment.
<i>Enterprise procedures</i> may include:	<ul style="list-style-type: none"> • range of enterprise procedures within defined work area.

Unit Sector(s)

Unit sector	
--------------------	--

Competency field

Competency field	Support
-------------------------	---------

Co-requisite units

Co-requisite units		

