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|  <p>Program Document CPBOK</p> <p>161 Thorn Hill Road Warrendale, PA 15086-7527</p> | <p style="text-align: center;">PD 6103</p> <p style="text-align: center;">CPBoK-008/OP-1 REV. A</p> <hr/> <p>Issued: 02-Feb-16</p> <p>Revised: 18-Jan-19</p> <p>Superseding: 02-Feb-16</p> |
| <p>BODY OF KNOWLEDGE:</p> <p>ROLE DESCRIPTION: OPERATOR</p> <p>SPECIAL PROCESS: CHEMICAL PROCESSING</p> <p>METHOD: PAINTING AND APPLICATION OF DRY FILM LUBRICANT</p> | |
| <p>All PRI QualificationSM program examinations are created using the applicable PRI QualificationSM program Body of Knowledge (BoK), which defines the baseline knowledge and experience required to be considered competent to perform the specified job role in aerospace special process manufacturing.</p> <p>All BoKs are created by subject matter experts who participate in the PRI QualificationSM Body of Knowledge Review Boards. All BoKs are updated periodically according to the latest revision of PRI QualificationSM program documentation (PD6100: Industry Managed Special Process Bodies of Knowledge) to ensure consistency with current industry practice.</p> | |

1. INTRODUCTION

This document has been created by the PRI QualificationSM program Chemical Processing Body of Knowledge Review Board (CP-BoKRB) according to the requirements of PD6100.

This document constitutes the PRI QualificationSM program BoK for Chemical Processing, Painting and Application of Dry Film Lubricants for the Operator Level. It defines the baseline knowledge and experience required to be considered competent to perform this role.

Unless otherwise stated, the CP-BoKRB has followed guidelines as detailed in the current version of International Aerospace Quality Group (IAQG) Guidance PCAP 001 (Competence Management Guideline) to develop this BoK.

The information in this BoK will provide guidance for the following:

- Training providers who wish to develop training courses intended to support PRI QualificationSM program examination candidate preparation
- Chemical Processing Examination Review Board (CP-ERB) for the development of PRI QualificationSM program examinations
- Candidates taking PRI QualificationSM program examinations who wish to prepare in advance

2. REFERENCES

PRI QualificationSM program documents:

| | |
|--------|--|
| PD6000 | Governance & Administration of PRI Qualification SM Program |
| PD6100 | Industry Managed Special Process Bodies of Knowledge |
| PD6200 | Industry Managed Special Process Examinations System |
| IAQG | International Aerospace Quality Group |

IAQG documents:

IAQG Guidance PCAP 001 Competence Management Guideline

3. DEFINITIONS

Definitions described within are specific to the Special Process BoK. For program-specific definitions, please refer to either the PD 6000 or the PRI QualificationSM Dictionary.

BODY OF KNOWLEDGE (BoK): Baseline knowledge and experience required to be considered competent for a target position.

GENERAL EXAMINATION: The General Examination is designed to ascertain the candidate's general knowledge required for a particular job, role or activity. All of the questions will be derived from the corresponding BoK.

EXPERIENCE: The accumulation of knowledge or skill that results from direct participation in events or activities over a period of time.

KNOWLEDGE: Information / understanding acquired over a period of time. Information acquired through study and retained over that period of time (education, training, experience etc.) The combination of data and information, to which is added expert opinion, skills and experience, to result in a valuable asset which can be used to aid decision making and problem solving.

LEVEL: A class or division of a group based on education, training and experience. There are 3 levels: Operator/Technician, Planner and Owner. Please refer to the current version of PD 6000 for definitions.

METHOD: A well-defined division of a SPECIAL PROCESS widely recognised by industry. A specific area of a special process for example anodizing within Chemical Processing

NON-SPECIAL PROCESS RELATED REQUIREMENTS: Miscellaneous requirements such as Health and Safety, Environmental, etc.

PERSONAL ATTRIBUTES: A quality or characteristic expected and required for a particular job, role or activity.

PRACTICAL EXAMINATION: The Practical Examination shall consist of a demonstration of proficiency in performing tasks that are typical of those to be accomplished in the performance of the candidate's duties. The examination content is derived from the corresponding BoK.

SKILL: Ability to perform a particular task. Skill is the quality of being able to do something that is acquired or developed through training or experience.

SPECIFIC EXAMINATION: The Specific Examination shall cover requirements and use of the specifications, codes, equipment, operating procedures and test techniques the candidate may use in the performance of his/her duties with the employer. Examination content will be derived from the corresponding BoK where applicable.

WEIGHTING: The "weighting" of each line item, using a scale of 1, 3, 7, 10, (1 being least important; 10 being most important) indicates the relative importance of that aspect of the BoK and will determine the likelihood and frequency of a question on that topic appearing in the examination.

4. GUIDANCE TO EXAMINATION CANDIDATES

All PRI QualificationSM program examination candidates are recommended to read all documents referenced in section 2 of this document.

As stated in PRI QualificationSM program document PD6200, every exam question shall relate directly to and be derived from the information as detailed in the current version of the BoK.

Re-assessment to this BoK is required every 5 years, unless otherwise specified.

Candidates are therefore advised to ensure familiarity with all aspects of the BoK as detailed in Table 1. This can be done through:

- Self-study
- Completion of internal training
- Completion of external training (a list of Approved Training Providers can be found at www.p-r-i.org)

Records of all qualified personnel shall be maintained and include:

- Date of Qualification
- Results of Written Exam
- Results of Practical Exam (if applicable)
- Summary of Experience (Owner level only)

5. LEVELS

| Level | | | |
|---|--|--|--|
| Descriptors | Operator (OP) / Technician (T) | Planner (PL) | Owner (OW) |
| | <i>For descriptions, please refer to current version of PD6000</i> | <i>For descriptions, please refer to current version of PD6000</i> | <i>For descriptions, please refer to current version of PD6000</i> |
| Painting and Application of Dry Film Lubricant Process Specific Criteria | No additional criteria for the Painting and Application of Dry Film Lubricant process. | No additional criteria for the Painting and Application of Dry Film Lubricant process. | No additional criteria for the Painting and Application of Dry Film Lubricant process. |
| Technical Knowledge | Basic knowledge of the Painting process and application of Dry Film Lubricants, its main processes, methods and tools. | Good level of knowledge in all aspects of the Painting process and application of Dry Film Lubricants, all its processes, methods and tools. Ability to coach others on contents and methods in the context of their workplace. | High or extensive knowledge in all aspects of the Painting process and application of Dry Film Lubricants, all its processes, methods and tools to assess and validate improvements. Able to contribute to set externally recognized standards. Ability to define contents and methods for using knowledge effectively in influencing and developing international processes. Ability to influence the process with one's knowledge. |
| Experience | Sufficient experience to deal with recurrent activity. | Has enough experience to deal with unforeseen issues. | Wide proven experience of the subject. Is recognized as a specialist within the special process. |
| Personal Attributes | Takes into consideration behavioral characteristics such as but not limited to: team working, communication, direction and purpose, innovation and problem solving, mutual trust and respect, confidentiality and trustworthiness. | | |
| Skills | Describes the activities necessary to perform each level of job function to comply with the Body of Knowledge | | |
| Non-Special Process Related Requirements | Health & Safety, Environmental, Quality System Requirements. | | |

6. TABLE 1

ROLE DESCRIPTION: Operator

SPECIAL PROCESS: Chemical Processing

METHOD: Painting and Application of Dry Film Lubricant

REFERENCE GUIDELINES: *Addendum 1 is a list of the International Standards and Reference Documents applicable to Painting and Application of Dry Film Lubricant processes.*

| Row # | COMPETENCE | Weight (1,3,7,10) | Exam Type Written / Practical | Reference Guidelines |
|-------|--|----------------------|--|--------------------------------|
| | KNOWLEDGE: The basic knowledge of the special processes, methods and tools | | | |
| | GENERAL KNOWLEDGE: | | | |
| 1 | Understand how to determine if there has been damage to the part surface. | 7 | Written | AC 7108 |
| 2 | Full and complete understanding of Internal Work instructions | 7 | Written | AC 7108 |
| 3 | Know how to access customer specifications and requirements (i.e. where to find them). | 1 | Written | AC 7108 |
| 4 | Understand how to interpret customer specification and requirements in the context of performing the Paint process. | 1 | Written | AC7108 |
| 5 | Understand Industry Standards | 3 | Written | AC7108 |
| 6 | Knowledge and understanding of the accept/reject criteria for Paint / Dry Film, including thickness, adhesion and cure. | 3 | Written | AC 7108, ASTM D3359, AC 7108/4 |
| 7 | Knowledge of the Surface Preparation procedures | 10 | Written | AC7108 |
| 8 | Have an awareness of the basic control and calibration requirements for equipment. | 7 | Written | AC7108 |
| 9 | Know how to perform any cleanliness requirements for paint booth. | 10 | Written | AC 7108/1 |
| 10 | Knowledge and understanding of mathematics, including decimal and fractions | 3 | Written | Addendum 1 |
| 11 | Know how to use precision measuring instruments and equipment | 7 | Written | Addendum 1 |
| 12 | Know and understand job documentation including awareness of fixed and frozen process requirements. | 7 | Written | AC7108 |
| 13 | Know and understand the significance of delays between surface preparation and painting operations. | 10 | Written | AC 7108/1 |
| 14 | Have an awareness of surface preparation prior to painting including general cleaning, mechanical cleaning and chemical cleaning prior to painting. | 3 | Written | AC 7108/1 |
| 15 | Know and understand the importance of cleanliness of the work area. | 10 | Written | AC7108 |
| 16 | Understand the importance of temperature control for paint storage and the need for the paint to be at the correct temperature before mixing or spraying. | 7 | Written | AC7108 AC7108/1 |
| 17 | Know and understand how to mix, measure viscosity of paints and proper use of Zahn cup. | 10 | Written | AC 7108 AC7108/1 |
| 18 | Know and understand how paint is cured and how to adjust the curing condition to match the paint. | 7 | Written | AC7108/1 |
| 19 | Know and understand key paint test procedures such as airline cleanliness, visual, thickness, adhesion & cure etc. | 7 | Written | AC7108/1, AC 7108/4 |
| 20 | Know and understand the importance of part set-up and masking. Especially matching masking materials to curing conditions and the need to remove inappropriate material and residues before curing. | 10 | Written | AC7108/1 |
| 21 | Knowledge and understand about the selection of appropriate equipment for use in the painting process. | 7 | Written | AC7108/1 |
| 22 | Understand the need for pre-process checks (such as calibration status and environmental conditions). | 10 | Written | AC 7108 AC7108/1 |
| 23 | Understand the mechanics and importance of allowing Carriers (Solvents/Water) to flash off between coats and before curing, | 10 | Written | AC7108/1 |
| 24 | Thoroughly understand the painting process and an awareness of the different types of paints. | 7 | Written | AC7108/1 |
| 25 | Have an awareness of the effects on painting of various pre-treatments such as blasting, chemical conversion coating anodizing, previous painting etc. on the paint application process. | 3 | Written | AC7108/1 |
| 26 | Have an awareness of the curing including infrared and thermal curing, and the potential impact of the curing cycle on temperature sensitive substrates such as composites and some aluminum alloys. | 3 | Written | AC7108/1 |
| 27 | Have an awareness of the effect of temperature and humidity on painting and curing. | 7 | Written | AC7108/1 |
| 28 | Understand the importance and the need for keeping paint records. | 10 | Written | AC7108/1 |
| 29 | Knowledge and ability to write and review internal procedures and practices. | 1 | Written | AC7108/1 |
| 30 | Know how to recognize unsafe and/or inappropriate work practices. | 7 | Written | Addendum 1 |
| 31 | Understand how to deal with incorrect or inappropriate painting. | 3 | Written | AC7108/1 |

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| | | | | |
|----|---|----|---------|-------------------------------------|
| 32 | Know and understand how to review and take action on paint test result data. | 1 | Written | AC7108/1 |
| 33 | General knowledge and understanding of all the painting processes including the general concepts of color and gloss. | 3 | Written | AC7108/1 |
| | ONE PACK/PART PAINTING (paints that can be used as supplied or with addition of a thinner only) | | | |
| 34 | Know uses, features and applications for this type of paint. | 3 | Written | AC7108/1 |
| 35 | Understand the limitations for this type of paint. | 3 | Written | AC7108/1 |
| 36 | Understand the technical data sheets for this type of paint. | 7 | Written | AC7108/1 |
| 37 | Understand the mixing requirements for this type of paint. | 10 | Written | AC7108/1 |
| 38 | Understand the curing requirements for this type of paint. | 10 | Written | AC7108/1 |
| 39 | Understand the application requirements for this type of paint. | 10 | Written | AC7108/1 |
| 40 | Have an awareness of the potential impact of high curing cycles on temperature sensitive substrates. | 3 | Written | AC7108/1 |
| 41 | Have an awareness of the required PPE. | 7 | Written | Addendum 1 |
| | MULTI-PACK/PART PAINTING (Paints made by mixing two or more constituents such as base & hardening or curing agents) | | | |
| 42 | Know uses, features and applications for this type of paint. | 3 | Written | AC7108/1 |
| 43 | Have an awareness of the limitations for this type of paint. | 3 | Written | AC7108/1 |
| 44 | Understand the technical data sheets for this type of paint. | 7 | Written | AC7108/1 |
| 45 | Understand the mixing requirements for this type of paint including the pigmented constituent and using the correct catalysts and mixing ratios | 10 | Written | AC7108/1 |
| 46 | Understand the curing requirements for this type of paint | 10 | Written | AC7108/1 |
| 47 | Understand the application requirements for this type of paint | 10 | Written | AC7108/1 |
| 48 | Understand the significance of multipack paints including induction times, pot life and using the correct components. | 10 | Written | AC7108/1 |
| 49 | Knowledge of the difference between manufacture's shelf life and open tin shelf life. | 10 | Written | AC7108/1 |
| 50 | Have an awareness of the required PPE. | 7 | Written | Addendum 1 |
| | PRIMER APPLICATION | | Written | |
| 51 | Know the uses, features and applications for this type of paint. | 3 | Written | AC7108/3, MIL-C-8507, MIL-PRF-23377 |
| 52 | Know and understand the limitations for this type of paint. | 3 | Written | AC7108/3 |
| 53 | Know and understand the difference between primer types such as bond primers, wash primers and normal primers and the differences in their storage, mixing and application. | 3 | Written | AC7108/3 |
| 54 | Understand the need for and reactivation of old primed substrates | 10 | Written | AC7108/3 |
| 55 | Understand the mixing requirements for this type of Paint including the pigmented constituent and using the correct ratios | 10 | Written | AC7108/3 |
| 56 | Understand the curing requirements for this type of Paint | 10 | Written | AC7108/3 |
| 57 | Understand the application requirements for this type of Paint | 10 | Written | AC7108/3 |
| 58 | Have an awareness of the environmental, worker safety and health concerns associated with these types of Paint. | 7 | Written | Addendum 1 |
| | TOP COAT PAINT APPLICATION | | | |
| 59 | Know the uses, features and applications for this type of paint. | 3 | Written | AC7108/1, ASTM D16, MIL-DTL-24441D |
| 60 | Know and understand the limitations for this type of Paint. | 3 | Written | AC7108/1, ASTM D16, |
| 61 | Understand the need for and reactivation of old primed substrates | 7 | Written | AC7108/1, ASTM D16, |
| 62 | Have an awareness of the need to know paint thickness of primer in order to measure that of the Topcoat. | 7 | Written | AC7108/1, ASTM D16, ASTM D8023 |
| 63 | Know and understand the impact of spraying and curing conditions on the final appearance of Topcoat Paints. | 7 | Written | AC7108/1, ASTM D16, |
| 64 | Have an awareness of the importance of color and gloss to topcoat painting. | 3 | Written | AC7108/1, ASTM D16, |
| 65 | Understand the mixing requirements for this type of Paint including the pigmented constituent and using the correct catalysts and mixing ratios | 10 | Written | AC7108/1, ASTM D16, |
| 66 | Understand the curing requirements for this type of Paint | 10 | Written | AC7108/1, ASTM D16, |
| 67 | Understand the application requirements for this type of Paint | 10 | Written | AC7108/1, ASTM D16, |
| 68 | Have an awareness of the environmental, worker safety and health concerns associated with these types of Paint. | 3 | Written | Addendum 1, ISO 14001, OHSAS 18001 |
| | DRY FILM LUBRICANT APPLICATION | | | |
| 69 | Understand "Accept & Reject" Criteria. | 7 | Written | AC7108/1, SAE AS5272, |
| 70 | Know the uses, features and applications for this type of coating. | 3 | Written | AC7108/1, SAE AS5272, ASTM D5796 |
| 71 | Know and understand the limitations for this type of coating. | 3 | Written | AC7108/1, SAE AS5272 |
| 72 | Understand the build-up of thicker films. | 7 | Written | AC7108/1, SAE AS5272 |
| 73 | Understand the mixing requirements for this type of coating | 10 | Written | AC7108/1, SAE AS5272 |
| 74 | Understand the curing requirements for this type of coating | 10 | Written | AC7108/1, SAE AS5272 |
| 75 | Understand the application requirements for this type of coating | 10 | Written | AC7108/1, SAE AS5272 |
| 76 | Have an awareness of the local regulations environmental, worker safety and health concerns associated with these types of coating. | 3 | Written | AC7108/1, SAE AS5272 |
| 77 | Knowledge of proper cleaning of paint guns, hoses and other equipment | 3 | Written | AC7108/1, SAE AS5272 |

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| | | | | |
|-----|--|----|---------|---|
| 78 | Knowledge of proper painting techniques: Spray Application: Mixing of bases and curing solutions for primers and paints; Measuring of paint viscosity; Water-break free testing; Identification of improper and/or unacceptable finish application | 7 | Written | AC7108/1, AC7108/3, SAE AS5272 |
| 79 | Knowledge and ability to perform thickness and dry/wet tape adhesion tests. | 10 | Written | AC7108/1, SAE AS5272, ASTM D5796, ASTM D3359 |
| 80 | Knowledge and ability to prepare composite surfaces for paint application. | 7 | Written | AC7108/1, SAE AS5272 |
| 81 | Knowledge of temperature limitations for accelerated cures. | 7 | Written | AC7108/1, SAE AS5272 |
| 82 | Knowledge of paint stripping and removal for rework purposes. | 7 | Written | AC7108 |
| 83 | Knowledge in monitoring pot life, storage life and work life of paints, primers and accelerators. | 7 | Written | AC7108/1 |
| | SKILLS: Defined within these rolls describes the range of skills. The skills required to perform a particular special process task | | | |
| 84 | READ AND UNDERSTAND WRITTEN INSTRUCTIONS: | 10 | Written | General Industry |
| 85 | Apply Painting techniques appropriately | 10 | Written | General Industry |
| 86 | Verify and validate the Painted results. | 3 | Written | General Industry |
| 87 | Properly report non-conformance's | 10 | Written | AC7108 |
| 88 | Use of appropriate equipment for the Painting process. | 10 | Written | General Industry |
| 89 | Ability to follow instructions | 10 | Written | General Industry |
| 90 | Interpretation of an acceptable Painting process | 3 | Written | General Industry |
| 91 | Must be able to set-up operations (equipment e.g. gravity test guns, viscosity, timers & temperatures) including alternate procedures as appropriate | 3 | Written | General Industry |
| 92 | Must be able to understand and interpret shop travelers | 7 | Written | General Industry |
| | Sequencing | | | |
| 93 | Has an appropriate understanding of where this process falls in the sequence of events. | 10 | Written | General Industry |
| | PERSONAL ATTRIBUTES: Are statements that will enable judgment of the person's personal attributes | | | |
| 94 | Be able to work independently with a minimum of supervision | 3 | N/A | General Industry |
| 95 | Must have a high degree of integrity | 10 | N/A | General Industry |
| 96 | Be attentive to details | 10 | N/A | General Industry |
| 97 | Be flexible | 3 | N/A | General Industry |
| 98 | Tolerate stress | 7 | N/A | General Industry |
| 99 | Exhibit conflict resolution | 3 | N/A | General Industry |
| 100 | Decision making ability | 3 | N/A | General Industry |
| 101 | Team Worker | 10 | N/A | General Industry |
| 102 | Ethical Behavior | 10 | N/A | General Industry |
| | EXPERIENCE: Are the minimum experience requirement expected to demonstrate their competence. | | | |
| | EDUCATION: | | | |
| 103 | High School Diploma or GED or Secondary Education | 7 | N/A | General Industry |
| 104 | Apprenticeship | 3 | N/A | General Industry |
| 105 | Industry Training or Courses | 3 | N/A | General Industry |
| 106 | TRAINING / HANDS-ON-EXPERIENCE: | | N/A | General Industry |
| 107 | Complete on the job training: Minimum number of hours- | | N/A | |
| 108 | OPERATOR – 160 Hours | 10 | N/A | General Industry |
| | NON-SPECIAL PROCESS RELATED REQUIREMENTS: Defined within these roles are other general or pre-requisite needed | | | |
| 109 | Capability to lift up to 30 lbs. (e.g. up to 23 kg) | 7 | Written | General Industry |
| 110 | Able to deal with repetitive bending and stooping | 10 | Written | General Industry |
| | SAFETY & ENVIRONMENTAL REQUIREMENTS: | | | |
| 112 | Knowledge and understanding of safety and handling and disposal of hazardous material, paints, etc. including safe storage, interpretation of Health & Safety Data Sheets and Regulatory Requirements | 10 | Written | AC7108, ISO 14001, OHSAS 18001 |
| 113 | Understand Safety Data Sheets (SDS) and Personal Protective Equipment Requirements: When and how to use appropriate personal protective equipment (masks, respirators, gloves, aprons, etc.) | 10 | Written | Environmental Law & Regulations, ISO 14001, OHSAS 18001 |
| 114 | Understand which personal protective equipment to use, when and why | 10 | Written | ISO 14001, OHSAS 18001 |
| 115 | Understand the safe storage, shelf life and mixing of paints, solvents and chemicals | 10 | Written | AC7108 |
| 116 | Ability to recognize symbols associated with paint related products and their usage | 10 | Written | AC7108 |
| 117 | General understanding of Quality System, AS/EN/JISQ 9100 or AC7004 or equivalent | | Written | AS/EN/JISQ 9100 |

7. DOCUMENT REVISION HISTORY

| REVISION DATE | SUMMARY |
|----------------------|--|
| 4 October 2017 | Updated to new BoK Template |
| 18 January 2019 | Reviewed by eQualified Content Developer to ensure content is up to date. |
| 3 December 2019 | Editorial revision to update program name from eQualified to PRI Qualification SM . |

ADDENDUM 1

LIST OF INTERNATIONAL STANDARDS & REFERENCE DOCUMENTS FOR (Chemical Processing)

| SPECIAL PROCESS | DOCUMENT TITLE | DOCUMENT NUMBER |
|----------------------------|---|------------------------|
| Chemical Process | Nadcap Audit Criteria for Quality Management System | AC 7004 |
| Chemical Process | Nadcap Audit Criteria for Chemical Processing | AC 7108 |
| Chemical Process | Nadcap Audit Criteria for Application of Painting & Dry Film Lubricants and Application of Sol Gel as a Preparation for Paint | AC 7108/1 |
| Chemical Process | Nadcap Audit Criteria for Surface Preparation Prior to Metal Bond | AC 7108/3 |
| Chemical Process | Nadcap Audit Criteria for Solution Analysis and Testing in Support of Chemical Processing | AC 7108/4 |
| Chemical Process | Standard Terminology for Paint, Related Coatings, Materials, and Applications | ASTM D16 |
| Chemical Process | Standard Test Methods for Measuring Adhesion by Tape Test | ASTM D3359 |
| Chemical Process | Standard Test Method for Measurement of Dry Film Thickness | ASTM-D-5796 |
| Chemical Process/Paint | Standard Practice for Thickness of Paint | ASTM-D-823 |
| Chemical Process | Environmental Management System | ISO 14001 |
| Chemical Process | Coating, Wash Primer (Pretreatment) for Metals, Application of (For Aeronautical Use) | MIL-C-8507 |
| Chemical Process | Finishes, Organic, Weapons Systems, Application and Control of | MIL-DTL-18264 |
| Chemical Process/Paint | PAINT, EPOXY-POLYAMIDE, GENERAL SPECIFICATION FOR | MIL-DTL-24441D |
| Chemical Process/Primer | Primer Coating, Epoxy – Polyamide Chemical & Solvent Resistance | MIL-PRF-23377 |
| Chemical Process | Occupational Health and Safety Management | OHSAS 18001 |
| Chemical Process/Lubricant | Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting, Procurement Specification | SAE AS5272E |

ADDENDUM 2

ADDITIONAL SAFETY & ENVIRONMENTAL REQUIREMENTS

REACH REGULATION INFORMATION

Several metal finishing processes (painting, anodize, chromate conversion, passivate, electroplating) may have REACH regulated substances that are either used as process chemicals or are contained within the finished product after a process is completed. Chemical suppliers are obliged to provide a legislatively compliant safety data sheet. Below are topics of concern that a chemical processing owner should be aware of and have adequate understanding if products are produced within or shipped to the European Union.

- REACH (Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals)
- Affects raw materials/substances that go into products either produced within or shipped to the European Union.
- Under EU REACH regulation, substances that are one of the following can be regarded as substance of very high concern (SVHC):
 - carcinogenic, mutagenic or toxic to reproduction (CMRs);
 - persistent, bio-accumulative and toxic (PBTs);
 - very persistent and bio-accumulative (vPvBs);
 - seriously and / or irreversibly damaging the environment or human health, as substances damaging the hormone system;
- The SVHC candidate list is a moving target that will continue to grow with 168 substances as of January 2016. This list is reviewed nominally twice a year by ECHA.
- Some typically used SVHC's contained in or used but not limited to during chemical processing are;
 - Cadmium
 - Strontium Chromate
 - Chromium trioxide
 - Sodium dichromate
- SVHC content is allowable up to 0.1% of an article produced within or shipped to the EU.
- Additionally, SVHC's may at some time be added to the Authorization List known as Annex 14 or XIV which contains a sunset date for each SVHC in this list.
- Owner needs to be aware of sunset dates for SVHC's contained in the Authorization list. Once an SVHC from the Authorization List reaches the sunset date, it can no longer be used in the EU without specific authorization from ECHA (European Chemicals Agency).
- Manufacturing sites either located within or if shipping product to the EU must comply with all aspects of REACH. Chemical suppliers in the EU must provide safety data sheets that reflect any conditions of an authorization.
- Further information/current SVHC and Authorization list with sunset dates can be obtained by accessing (<http://www.echa.europa.eu/web/guest/candidate-list-table>)