

StanleyBlack&Decker		EHS – MS – ES100118 Rev: 18 03/29/2019
Stanley Black & Decker	Banned & Restricted Substance Requirements	Page 1 of 17

1.0 Purpose and Scope

This specification outlines the restricted substance requirements for complying with the Stanley Black & Decker's (SBD) EHS Management System Plan. The Restricted Substances List applies to substances used in manufacturing processes, parts, sourced products, accessories, and packaging. This specification covers SBD's responsibilities, supplier requirements, banned and controlled substances, reportable substances, statements of compliance, audits of material to ensure compliance, raw material certification requirements and our exception policy.

2.0 Applicability

This specification applies to all Stanley Black & Decker business functions and operations worldwide including those joint ventures, partnerships or other business arrangements where Stanley Black & Decker holds a majority ownership interest, majority voting control, or where SBD, by contract, has agreed to manage the company. The requirements in this standard are the baseline requirements for all business functions. Specific business functions have the option of being more restrictive than this specification. Legal requirements may vary in different countries in which Stanley Black & Decker facilities are located. This specification must be applied in each country regardless if legal requirements are less stringent. This specification will be reviewed and amended at varying time intervals based on legislation and scientific research.

3.0 Definitions

Accessories - items providing an interface between the electrical tool or appliance and the work piece e.g. abrasive discs, drill bits, chisels.

Article - An object which during production is given a special shape, surface or design, which determines its function to a greater degree than does its chemical composition. Examples of articles are a car, a battery and a telephone.

Banned Substances – substances that are not allowed to be intentionally added.

Battery/Accumulator - any source of electrical energy generated by direct conversion of chemical energy and consisting of one or more primary battery cells (non rechargeable) or consisting of one or more secondary battery cells (rechargeable).

Battery Pack - means any set of batteries/accumulators that are connected together and/or encapsulated within an outer casing so as to form a complete unit that the end user is not intended to split up or open.

Button Cell - any small round portable battery or accumulator whose diameter is greater than its height and is used for special purposes such as hearing aids, watches, small portable equipment and back-up power.

Controlled Substances –substances that are limited for use below specific concentration thresholds.

Exception – an allowance provided by Stanley Black & Decker to use a substance that does not meet the requirements of this specification. The specific terms of the exception with respect to application and timing will vary on a case by case basis. The exception policy can be found in Section 8.0. **Exceptions will not be given for regulatory requirements.**

Exemption – an allowance provided by legislation to use a substance that does not meet the requirements of this specification. Exemptions are typically application specific and subject to change as the legislation evolves.

Fasteners – Nails and Staples.

Hardwood Plywood - means a panel composed of an assembly of (A) hardwood layers or plies of veneer or (B) veneers in combination with a platform consisting of lumber core, composite core, a special core material, or special back material, joined with an adhesive. The face veneer may be composed of a hardwood or decorative softwood species (ANSI/HPVA HP-1-2004). “Hardwood plywood” includes wall paneling, industrial panels, and “hardwood plywood” panels used in making flooring. “Hardwood plywood” does not include laminated products, military specified plywood, or curved plywood.

Homogeneous Material - A material that cannot be mechanically disjointed into different materials. The term ‘homogeneous’ is understood as “of uniform composition throughout”, so examples of “homogeneous materials” would be individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins and coatings. The term “mechanically disjointed” means that the materials can be, in principle, separated by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes. (Excerpt from RoHS Regulations Government Guidance Notes)

Material – Are items used to construct parts? Materials consist of one or more substances.

Medium density fiberboard (MDF) - A panel composed of cellulosic fibers (usually wood) made by dry forming and pressing of a resinated fiber mat (ANSI A208.2-2002).

Packaging – Materials that provide containment, protection, handling, delivery and presentation of Stanley Black & Decker products. There are two types of packaging that have different requirements:

Integral Packaging - forming an integral part of a product to contain, support or preserve the product throughout its lifetime and where all elements (product and packaging) are intended to be used, consumed or disposed of together by the consumer e.g. Kit box.

Non-Integral Packaging – packaging that is intended to be discarded after removing the product.

Part – Any item or assembly that is incorporated into Stanley Black & Decker products. A part can consist of one or more materials.

Particleboard - A panel composed of cellulosic material (usually wood) in the form of discrete particles (as distinguished from fibers, flakes, or strands) that are pressed together with resin (ANSI A208.1-1999).

Portable Battery/Accumulator - means any battery/accumulator, button cell, or battery pack that is sealed, can be hand carried and is not for industrial or automotive purposes.

PCB – Polychlorinated Biphenyl

PPM – Abbreviation for Parts per Million. A dimensionless quantity used to express the concentration of substances.

Reportable Substances –substances that are not currently banned or controlled for use but a ban or voluntary phase-out is likely. If a reportable substance is used in a manufacturing process or as an ingredient in any part, sourced product, accessory, or packaging (even if the substance isn’t present in the final form) then the details of the substance’s use must be reported to Stanley Black & Decker.

Sourced Product – A finished product that is manufactured by a supplier and purchased by Stanley Black & Decker for onward distribution to the global market place.

Substance - A “Substance” is a chemical element, compound, or polymer and has a CAS number.

Surface Coatings - forming materials plus pigments, solvents, and other additives, which, when applied to a surface and cured or dried, yields a thin film that is functional and often decorative. Surface coatings include paints, drying oils and varnishes, synthetic clear coatings, and other products whose primary function is to protect the surface of an object from the environment.

Thin Medium Density Fiberboard - means medium density fiberboard that has a maximum thickness of eight millimeters.

4.0 Stanley Black & Decker Responsibilities

It is the responsibility of Stanley Black & Decker to:

- Ensure that the note “All materials must comply with ES100118” is present on all engineering drawings.
- Ensure that all materials specified for designs comply with this specification.
- Inform the supplier when non-compliance is discovered.
- Inform the supplier when the contents of this specification have changed.

5.0 Supplier’s Responsibilities

It is the responsibility of the supplier to:

Ref #	Supplier Responsibility
SR-001	Comply with the Restricted Substance Requirements listed in Section 6.0 on <u>everything</u> (existing items, future items, and all markets) sold to Stanley Black & Decker unless an exception has been granted. The exception policy can be found in Section 8.0.
SR-002	Where a supplier provides alternative types of the same components and there is a potential for material change the worst case concentration must be assumed when reporting against the requirements of ES100118
SR-003	Cascade the requirements of this specification to their sub-tier suppliers.
SR-004	Respond to non-compliances discovered during surveillance testing in a timely fashion and provide documentation when requested. See Section 7.0.
SR-005	Complete the online (Gensuite) declaration to this specification. Completion and submission of the declaration to Stanley Black & Decker constitutes a testament that all the information is accurate and complete. This declaration must be signed by a person who is authorized to sign on behalf of the supplier.
SR-006	Report any change to the material content of an approved part, sourced product, accessory or packaging that would affect the accuracy of the aforementioned declaration.

6.0 Restricted Substance Requirements (regardless of item's intended market)

Table 1: Banned and Controlled Substances

REF#	Substance (CAS No.)	Category	Threshold	Applies to	Rev. # Added or revised	Requirement Origin	Potential Uses
BC-001	Polychlorinated biphenyls (PCBs) (1336-36-3)	Banned	None intentionally added	Parts, Sourced Products, Accessories, Manufacturing Processes and All Packaging	0	Many individual market regulations (e.g. EU Directive 76/769/EEC)	Coolants and insulating fluids for transformers and capacitors, plasticizers in paints and cements, stabilizing additives in flexible PVC coatings of electrical wiring and electronic components, cutting oils, reactive flame retardants, lubricating oils, hydraulic fluids, sealants, adhesives, wood floor finishes, paints, de-dusting agents, water-proofing compounds, casting agents, vacuum pump fluids.
BC-002	Asbestos & its compounds (1332-21-4 & Various)	Banned	None intentionally added	Parts, Sourced Products, Accessories, Manufacturing Processes and All Packaging	0	Many individual market regulations (e.g. EU Directive 76/769/EEC)	Drywall and joint compound, plaster, mud and texture coats, adhesives, caulk, gaskets, packing, thermal pipe insulation, drilling fluid additives
BC-003	Class I and Class II Ozone Depleting Substances (Various)	Banned	None intentionally added	Parts, Sourced Products, Accessories, Manufacturing Processes and All	0	Many individual market regulations resulting from the Montreal Protocol	Refrigeration and Air Conditioning, Aerosols, Foam Blowing/Rigid

				Packaging		See Website for list of substances: http://www.epa.gov/ozone/science/ods/index.html	Insulation Foams, Fire Extinction, Pest Control/Soil Fumigation, Solvents
BC-004	Lead (7439-92-1)	Controlled	1000 PPM	Homogeneous materials in Parts, Sourced Products, Accessories, Integral Packaging	0	EU RoHS Directive 2011/65/EU See website for exemptions: http://www.rohs.gov.uk/content.aspx?id=15	Paints and pigments, PVC (vinyl) cables as a stabilizer (e.g. power cords, USB cables), solders, printed circuit board finishes, leads, internal and external interconnects, glass in television and photographic products (e.g. CRT television screens and camera lenses), metal parts, lamps and bulbs, batteries
BC-004a			600 PPM	Surface Coatings	1	SB&D Company Requirement	
BC-005	Mercury (7439-97-6)	Controlled	1000 PPM	Homogeneous materials in Parts, Sourced Products, Accessories, Integral Packaging	0	EU RoHS Directive 2011/65/EU See website for exemptions: http://www.rohs.gov.uk/content.aspx?id=15	lighting applications, automotive switches, batteries
BC-005a			5 PPM	Battery/Accumulator	8	EU Battery Directive 2006/66/EC & 2013/56/EU US State Legislation: <u>Maine</u> , <u>Connecticut</u> , <u>Rhode Island</u> , <u>Louisiana</u> Brazil – Conama 401/08	
BC-006	Cadmium (7440-43-9)	Controlled	100 PPM	Homogeneous materials in Parts, Sourced Products, Accessories, Integral	0	EU RoHS Directive 2011/65/EU See website for exemptions:	Paints and pigments, PVC (vinyl) cables as a stabilizer (e.g. power cords, USB

				Packaging		http://www.rohs.gov.uk/content.aspx?id=15	cables), solders, printed circuit board finishes, leads, internal and external interconnects, glass in television and photographic products (e.g. CRT television screens and camera lenses), metal parts, lamps and bulbs, batteries
BC-006a			20 PPM	Portable Battery/Accumulator	8	EU Battery Directive 2006/66/EC & 2013/56/EU Exemption: This requirement does not apply to emergency and alarm systems, including emergency lighting, medical equipment or cordless power tools. Brazil – Conama 401-08	
BC-007	Hexavalent Chromium (18540-29-9)	Controlled	1000 PPM	Homogeneous materials in Parts, Sourced Products, Accessories, Integral Packaging	0	EU RoHS Directive 2011/65/EU See website for exemptions: http://www.rohs.gov.uk/content.aspx?id=15	Metal finishes to prevent corrosion
BC-007a			Detected/Not Detected (See Section 7.0)	Chromate Conversion Surface Coatings	4	SB&D Company Requirement	
BC-008	Sum of Lead, Mercury, Cadmium and Hexavalent Chromium	Controlled	100 PPM	Non-Integral Packaging, Fasteners	6	EU Packaging Directive 94/62/EC and U.S. State Laws (Fasteners are often contained in packaging)	Paints and pigments used in packaging
BC-009	Polybrominated biphenyl (PBB) flame retardants	Controlled	1000 PPM	Homogeneous materials in Parts, Sourced Products, Accessories, Integral Packaging	0	EU RoHS Directive 2011/65/EU Key PBBs prohibited under this section include those listed in Appendix A. See website for exemptions: http://www.rohs.gov.uk/content.aspx?id=15	Flame Retardant in Plastics
BC-010	Polybrominated	Controlled	1000 PPM	Homogeneous	0	EU RoHS Directive	Flame Retardant in

	diphenyl ether (PBDE) flame retardants			materials in Parts, Sourced Products, Accessories, Integral Packaging		2011/65/EU Key PBDEs prohibited under this section include those listed in Appendix A. See website for exemptions: http://www.rohs.gov.uk/content.aspx?id=15	Plastics
BC-012	Polyaromatic Hydrocarbons (PAHs)	Controlled	1 PPM See Appendix B for table of PAHs and limit values	Parts, Sourced Products, Accessories, All Packaging	14	EU REACH Annex XV German GS Mark Requirements – If a supplier is unsure of the final application then the stricter requirements below should be adhered to.	Rubber and Plastic
BC-013	Perfluorooctane Sulfonates (PFOS) (1763-23-1)	Controlled	50 PPM for substances	Parts, Sourced Products, Accessories, All Packaging	7	EU Directive 2006/122/EC	Stain Repellant (Possibly Labels)
BC-013a			1000 PPM for semi-finished products				
BC-014	Dimethylfumarate (DMF) (624-49-7)	Controlled	1 PPM	Parts, Sourced Products, Accessories, All Packaging	8	EU Directive 2009/251/EC	Desiccants
BC-015	Formaldehyde Emissions (50-00-0)	Controlled	0.05 PPM	Hardwood Plywood Veneer Core	8	93120-93120.12, title 17, California Code of Regulations TSCA Title VI Based on the primary test method [ASTM E 1333-96 (2002)] Exemption provided for packaging.	Table Tops for Stationary Products
BC-015a			0.05 PPM	Hardwood Plywood Composite Core	8		
BC-015b			0.09 PPM	Particleboard	8		
BC-015c			0.11 PPM	Medium Density Fiberboard	8		
BC-015d			0.13 PPM	Thin Medium Density Fiberboard	8		

BC-016	Chromium Trioxide (1333-82-0)	Controlled	1000 PPM	Homogeneous materials in Parts, Sourced Products, Accessories, Integral Packaging. Manufacturing operations in Europe	15	EU REACH Regulation 1907/2006/EC sunset date September 21, 2017	Metal finishes to prevent corrosion.
BC-017	Tetrachloroethene, (perchloroethylene, carbon tetrachloride, hydrogen chloride, and hexachlorobutadiene)	Controlled	(-)	Parts, Sourced Products, Accessories, Manufacturing Processes and All Packaging	0	SBD Restricted Substance	Solvent and Degreaser for metal parts
BC-018	Methylene Chloride (dichloromethane)	Controlled	(-)	Parts, Sourced Products, Accessories, Manufacturing Processes and All Packaging	0	SBD Restricted Substance	Solvent and Degreaser for metal parts

Table 2: Reportable Substances

REF#	Class of Substances	Rev. # Added	Requirement Origin
RS-001	REACH Substances of Very High Concern (SVHC)	8-12	<p>EU REACH (EC 1907/2006) Substance of Very High Concern</p> <p>List of substances and supporting documentation can be found at: https://echa.europa.eu/candidate-list-table</p>
RS-002	California Safe Drinking Water and Toxic Enforcement Act of 1986	1-13	<p>Proposition 65: Safe Drinking Water and Toxic Enforcement Act of 1986.</p> <p><u>List of chemicals regulated by Proposition 65</u></p> <p>Suppliers of a part or accessory should inform Stanley Black & Decker if the part or accessory, sold on its own, would result in an exposure that requires a Proposition 65 warning. Suppliers of sourced products should assess the product and apply labels accordingly. The Proposition 65 substance list can be found at http://oehha.ca.gov/proposition-65/proposition-65-list</p> <p><u>The Proposition 65 list has numerous chemicals, most of which would not likely be present in items purchased for SBD products. The substances listed below have been found in products before and therefore, we are specifically listing those chemicals with a PPM concentration limit that if exceeded, requires reporting "Yes" to this question.</u></p> <p>Lead in Cordsets – 300 PPM Lead in PVC coverings on hand tools – 200 PPM Lead in Brass Accessories (e.g. compressor valve) – 300 PPM Di(2-ethylhexyl)phthalate (DEHP) (117-81-7) — 1000 PPM Di-isodecyl phthalate (DIDP) (26761-40-0)– 1000 PPM Diisononyl phthalate (DINP) (68515-48-0)– 1000 PPM Di-n-butyl phthalate (DBP) (84-74-2)– 1000 PPM Di-n-hexyl phthalate (DnHP) (84-75-3)– 1000 PPM Butyl benzyl phthalate (BBP) (85-68-7)– 1000 PPM</p> <p>A third party test report showing compliance to the phthalate limits is required for vinyl pouches</p>

RS-003	EU RoHS Directive 2011/65/EU	15	<p>Notice of additional 4 substances to be restricted from July 22nd 2019.</p> <p>Di(2-ethylhexyl)phthalate (DEHP) (117-81-7)- 1000 PPM Butyl benzyl phthalate (BBP) (85-68-7)– 1000 PPM Di-n-butyl phthalate (DBP) (84-74-2)– 1000 PPM DIBP – Diisobutyl Phthalate (84-69-5) -1000 ppm</p> <p>The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments from 22 July 2021. See http://ec.europa.eu/environment/waste/rohs_eee/legis_en.htm for further reference</p>
RS-004	Di-n-octyl Phthalate (DnOP) (117-84-0)	15	Phthalate of concern due to inclusion in children product phthalate regulations. See more information at https://www.cpsc.gov/Business—Manufacturing/Business-Education/Business-Guidance/Phthalates-Information
RS-005	Polyvinyl Chloride Components	17	Customer Concern
RS-006	Flame retardants containing bromine, chlorine or phosphorus	17	<p>Swedish Law concerning tax levied on chemicals in certain electronic items, SFS2016: 1067. Applies to printed circuit boards (not components on board) and plastic parts greater than 25 g. Specific bromine, chlorine and phosphorus compounds regulated can be found here: http://rkrattsdb.gov.se/SFSdoc/16/161067.PDF</p>
RS-007	Latex	18	Allergen Concern for STANLEY Healthcare Products
RS-008	Nickel	18	Allergen Concern for STANLEY Healthcare Products

Table 3: Statements of Compliance

Ref#	Topic	Statement of Compliance
SC-001	Radioactive Materials	The products, parts, and accessories provided to Stanley Black & Decker do not emit radiation above background levels.
SC-002	Animal Fur	The products, parts, and accessories provided to Stanley Black & Decker do not contain animal fur.
SC-003	Wood Products	To meet the requirements of the European Union Timber Regulations 995/2010 products, parts, and accessories provided to Stanley Black & Decker that contain wood (other than packaging and paper) must have a legal 'certificate of harvest' that can be produced when requested.
SC-004	Conflict Minerals	To meet the requirements of the United States Dodd Frank Act section 1502 the products, parts and accessories provided to Stanley Black & Decker should not contain conflict minerals (Columbite-tantalite, Cassiterite , Wolframite , and Gold) that directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo or an adjoining country. This will also be verified under separate communication using the EICC / GeSI spreadsheet.

7.0 Surveillance Audits

Business units within Stanley Black & Decker require test results to ensure that materials used comply with this specification. Each business unit defines their own audit procedure based on which substances they believe are the highest risks for non-compliance. This section describes the surveillance conducted by business.

7.1 Power Tools and Equipment Business

The Power Tools and Equipment Business conducts audits for the RoHS substances included in ES100118. If a material does not pass the internal audit, it will receive one of the four comments below in the test report which may require supplier action.

- 1) "Failure" - requires a Corrective Action from the supplier
 - Analytical testing detected restricted substance in material
 - Supplier responsible to explain presence of restricted substance and submit Corrective Action with implementation plan/dates
 - Inventory needs to be audited/segregated based on compliant/non-compliant materials
- 2) "Potential Failures" - often due to Bromine content
 - Bromine is not restricted substance, PBB/PBDE substances are restricted
 - Supplier must submit specific resin material information (Manufacturer, Trade Name, Grade and Color) with ROHS compliance letter from resin manufacturer - NOT part supplier
 - Materials engineering will determine if outside labs/test results via GC/MS are required
- 3) "Exemptions"
 - Cadmium plating on electrical connectors are exempt until there is a viable alternative
 - Part will be listed as an "exemption" on surveillance report, no supplier action required
- 4) "Additional Samples Required"

Stanley Black & Decker requires minimum sample size of 10g for Hexavalent Chromium testing. Supplier will need to provide 10g of the part in question.

Note: Samples will be tested using the hot water extraction method. Hexavalent Chromium will be reported as "Detected" or "Not Detected", where the detection limit of the UV unit using a diphenylcarbazide reagent is 0.25 ppm in 10 ml of extraction solution. Any obvious color change (red/purple) will be an indication of the presence of Hexavalent Chromium and will be reported as "Detected". Any sample where hexavalent chromium is "Detected" is considered a failure.

All sourced products suppliers need to provide the following Bill of Material information for Stanley Black & Decker to perform the required audit testing:

- Part numbers
- Part descriptions
- Materials and coatings
- Exploded diagrams referencing Bill of Material part numbers

If a sourced product supplier declines to provide this information, they **must** submit their product to a third party laboratory and provide the passing test results.

Raw Material Certification Requirements

Raw material certifications are required from all suppliers that provide high risk parts.

High risk parts are defined as:

- Painted parts – material certification for Paint only
- Zinc Plated parts – material certification for Chromate Conversion coating – Hexavalent or Trivalent
- Plastic parts
- Electrical parts – material certification for solder, terminal finishes, wire sheathing, switches and relays
- Cord sets - material certification for non-metallic parts only – sheathing, plug
- Lead wires – material certification for non-metallic parts only – sheathing
- Rubber parts
- Zinc castings – material certification for Chromate Conversion coating only – Hexavalent or Trivalent

Examples of high risk materials/parts are listed below:

- PVC (cadmium and lead as stabilizer and colorant. Phthalates as a Plasticizer)
- Plastic parts (PBDE and PBB as flame retardant)
- Red/orange/yellow plastics (cadmium, lead and chromium VI as lead Chromate; as colorant)
- Plated metal enclosures, fasteners, clips, and screws (Hexavalent Chromium as chromate finish)
- Populated printed-wiring-boards (PWBs) and their parts (lead as solder and terminal finish)
- Switches, relays (mercury as component of switch/relay)
- Lead solder used inside components
- Paint (cadmium and lead)
- Zinc castings (Hexavalent Chromium as chromate finish)

The raw material certification should come from the raw material supplier during the first part inspection and loaded into the Gensuite system under the appropriate part number. If the raw material changes over time, a new raw material certification should be provided to Stanley Black & Decker. Examples of appropriate raw material certifications can be found in Appendix C. The material certification should at least contain the following fields:

- The Manufacturer
- The Trade Name
- The Grade
- The Color
- The Lot Number
- Date Manufactured

7.2 Hand Tools and Storage Business

The Hand Tools Business requires test results for the substances listed below to demonstrate proof of compliance to ES100118. Test results can come from a Stanley Black & Decker Laboratory, a supplier laboratory or a third-party laboratory. The passing test results should be loaded into the Gensuite system under the appropriate part number. More detail regarding the restricted material requirements and testing limits can be found in specification CS4402.

- Heavy Metals (Lead, Cadmium, Mercury, Hexavalent Chromium) in parts and packaging
- Polybrominated biphenyls and Polybrominated diphenyl ethers in Plastics
- Polycyclic Aromatic Hydrocarbons (PAH) in Plastics and Rubber
- Phthalates in Plastics

7.3 Stanley Engineered Fastening Helicoil, Spiralock and Nelson Fasteners

- Hexavalent Chromate is permitted, for use as a conversion coating, on Cadmium plated inserts. No testing or audits are required.

8.0 Exception Policy

For any material that does not meet all of the requirements of this specification, an application for exception may be made to the Restricted Materials Committee by providing the following information to your Stanley Black & Decker sourcing representative.

- a) Supplier details (name, address, contact information, etc.)
- b) Part number and description
- c) Report from an independent recognized lab or Stanley Black & Decker lab identifying the level of restricted substance
- d) Details of where the substance is found and what properties or function it provides.
- e) Details of alternative materials available including any impacts arising from its use, different processes, reduced performance, durability etc.

The committee will review the request and respond by either granting the exception or denying the exception and providing recommendations for compliance. **Exceptions will not be granted where there is a regulatory requirement to meet a specific limit.**

A record of all the granted exceptions can be found in EP154 – Restricted Material Sample Plan.

Appendix A – Key Brominated Flame Retardants

Polybrominated Biphenyls (PBBs)	Chemical Abstracts Service (CAS) #
Bromobiphenyl	2052-07-05, 2113-57-7, 92-66-0
Decabromobiphenyl	13654-09-06
Dibromobiphenyl	92-86-4
Heptabromobiphenyl	59080-40-9, 36355-01-8(hexabromo-1,1'-biphenyl, 67774-32-7 (Firemaster FF-1)
Hexabromobiphenyl	59080-40-9, 36355-01-8,
Nonabromobiphenyl	27753-52-2
Octabromobiphenyl	61288-13-9
Pentabromobiphenyl	67888-96-18
Polybrominated Biphenyl	59536-65-1
Tetrabromobiphenyl	60044-24-8
Tribromobiphenyl	Not available

Polybrominated Diphenyl Ethers (PBDEs)	Chemical Abstracts Service (CAS) #
Bromodiphenyl Ether	101-55-3
Decabromodiphenyl Ether	1163-19-5
Dibromodiphenyl Ether	2050-47-7
Heptabromodiphenyl Ether	68928-80-3
Hexabromodiphenyl Ether	36483-60-0
Nonabromodiphenyl Ether	63936-56-1
Octabromodiphenyl Ether	32536-52-0
Pentabromodiphenyl Ether	32534-81-9

Tetrabromodiphenyl Ether	40088-47-9
Tribromodiphenyl Ether	49690-94-0

Appendix B – Polyaromatic Hydrocarbons (PAHs)

Parameter (mg/kg)	Category 1	Category 2		Category 3	
	Materials intended to be put into the mouth or materials of toy for children with long term intended skin contact (longer than 30 s)	Materials not covered by category 1, with foreseeable long term skin contact (longer than 30 s) or repeated short-term skin contact		Materials not covered by category 1 or 2, with foreseeable short term skin contact (shorter than 30 s)	
		Toys according to 2009/48/EC	Other products according to ProdSG	Toys according to 2009/48/EC	Other products according to ProdSG
Benzo[a]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[j]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[g,h,i]perylene	<0.2	<0.2	<0.5	<0.5	<1
Indeno[1,2,3-c,d]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Pyrene, Anthracene, Fluorathene	<1 (sum)	<5 (sum)	<10 (sum)	<20 (sum)	<50 (sum)
Naphthalene	<1	<2		<10	
Sum of 18 PAH	<1	<5	<10	<20	

Appendix C – Examples of Material Certification



品質證明書 TEST CERTIFICATE

中國鋼鐵股份有限公司
CHINA STEEL CORPORATION
中華民國高雄市小港區中鋼路1號
1 CHUNG KANG ROAD HSIAO KANG, KAOHSIUNG(812),
TAIWAN, REPUBLIC OF CHINA
TEL: (07)802-1111 FAX: (07)802-2511 (07)801-9427

2006年12月27日 9時35分
Tat Hao Steel CO., LTD.

客戶名稱 SOLD TO		泰豪鋼鐵股份有限公司 TAI HAO STEEL MATERIAL CO., LTD.		產品名稱 PRODUCT		CR SHEET-COIL																																					
規格名稱		JIS G3311 S50CM MOD. OILED RESTRICTED HARDNESS HRB: 85/95		發票號碼 INVOICE NO.		ZY74432758																																					
SPEC.		R-25		客戶編號 CUSTOMER NO.		B2484982																																					
送貨日期 SHIPPING DATE		MAY. 18, 2004		證明書日期 T/C ISSUE DATE		MAY. 19, 2004																																					
客戶訂單編號 T/C ORDER NO.																																											
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<p>Y.C. Huang for</p>								<p>冶金技術處處長 GENERAL MANAGER, METALLURGICAL DEPARTMENT</p>																																			

BASF Corporation

Certificate of Analysis



Customer:		Product Number		: 53675154	
BLACK & DECKER		Product Name		: CM_B3ZG6 GY7639 25kg 5H4 V	
MY-035		Vehicle		:	
701 EAST JOPPA ROAD		Batch/Lot		: 0101891528	
TOWSON MD 21286		Manuf. Date		: 08/23/2006	
Attention:		Shipped Date		:	
FAX:		Shipped Quantity		: 50.000 KG	
Cust Prod:		Delivery Date		: 08/30/2006	
Cust Prod Name:		Order Number		: 1392250232	
Cust P.O.:		Delivery Note		: 2093113362	
SAMPLE-ATTN: LESLIE B					
-----Specification-----					
Characteristic	Result	UOM	Minimum	Maximum	Test Method
Ash Content	30.02	%	28.00	32.00	ASTM 5630
Moisture Content	0.06	%		0.20	ASTM D789
MFR 235/5	10.4	dg/min	5.0	15.0	D1238

Revision Log:

REVISION HISTORY

REV	DATE	DESCRIPTION OF CHANGE	NAME
0	October 6 th , 2005	Initial release of specification. Included ban on Polychlorinated biphenyls, Asbestos and O-zone depleting substances and a restriction on use of RoHS substances.	Dan Fitzgerald
1	January 6 th , 2006	Added 600 ppm requirement for lead in surface coatings. Also required all engineering drawings to contain the note "All materials must comply with ES100118."	Colin Thirlaway
2	August 22 th , 2006	Added restrictions on Polyaromatic Hydrocarbons (PAHs)	Colin Thirlaway
3	October 10 th , 2006	Clarified the scope to include sourced products. Updated limit values on PAHs.	Colin Thirlaway
4	March 7 th , 2007	Clarified restrictions on hexavalent chromium in chromate conversion coatings. Updated limit values on PAHs. Included details on how a supplier needs to respond to Black & Decker audit results.	Colin Thirlaway
5	July 31 st , 2007	Added requirement that components for every market need to meet RoHS by January 1 st , 2008. Added raw material certification requirements.	Colin Thirlaway
6	January 31 st , 2008	Added packaging and accessory requirements. Added Exemption policy.	Colin Thirlaway
7	May 1 st , 2008	Added Perfluorooctane Sulfonates restriction. Clarified packaging and accessory requirements.	Colin Thirlaway
8	August 31 st , 2009	Updated scope. Added definitions, Black & Decker responsibilities and supplier responsibilities section. Listed restricted substances in a chart rather than paragraphs. Added mercury and cadmium requirements for batteries, Dimethylfumarate requirements, formaldehyde requirements and initial list of REACH Substances of Very High Concern. Added additional information requirements for sourced product suppliers.	Colin Thirlaway
9	December 9 th , 2009	Clarified that the substance requirements in ES100118 apply globally.	Colin Thirlaway
10	January 15, 2010	Added 2 nd list of REACH substances of Very High Concern.	Colin Thirlaway
11	August 20 th , 2010	Revised definition and reporting requirements for Reportable Substances. Added potential uses for all chemicals. Added 19 new Reportable Chemicals. Corrected PAH limits.	Colin Thirlaway
12	December 15, 2011	Changed reporting for SVHCs, Added Statements of Compliance, Divided Audit Procedures by Business, Added 2 PAHs.	Colin Thirlaway
13	July 2013	Added statement of compliance to California Prop 65 Added reference to EU Timber Regulations Added reference to US Conflict Mineral requirements	Colin Thirlaway
14	October 2014	Revised PAH to reflect EU REACH Requirements Revised format to coordinate with RSDS system	Colin Thirlaway
15	December 4, 2015	Revised EU REACH Requirements reflecting sunset date for Hexavalent Chromium (Chromium Trioxide) Preparation for revised EU RoHS requirements for additional substances Addition of Di-n-octyl Phthalate (DnOP) (117-84-0)	Colin Thirlaway

16	February 2017	Legislative references updated. RS-002 referencing vinyl pouches BC-005 & BC-006 – referencing Brazilian requirements SR-0-02 Wording clarification	Colin Thirlaway
17	January 2018	Removal of requirement to use 'reporting form'. All reporting to be done through Gensuite system. Clarified banned substances mean none intentionally added and not 0 ppm. Added RS-005 and RS-006.	Colin Thirlaway
18	March 2019	Legislative references update BC-015b referencing TSCA Title VI for particleboard RS-007 adding Latex as a reportable substance RS-008 adding Nickel as a reportable substance Section 7 adding Helicoil business referencing use of Hexavalent Chromium	Colin Thirlaway