

Test Report (SVHC)

No. SHAEC1204667129

Date: 15 May 2012

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BAOSHAN IRON & STEEL CO.,LTD.
NO.1800 TONGJI ROAD, SHANGHAI
201900, CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : HOT ROLLED STEEL

SGS Job No. : SP12-009488 - SH

Date of Sample Received : 05 Apr 2012

Testing Period : 05 Apr 2012 - 16 Apr 2012

Test Requested : As requested by client, SVHC screening is performed according to:
(i) Some substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before Dec 19, 2011 regarding Regulation (EC) No 1907/2006 concerning the REACH.

Test Results : Please refer to next page(s).

Summary :

According to the specified scope and analytical techniques, concentrations of tested SVHC are $\leq 0.1\%$ (w/w) in the submitted sample.

PASS

Signed for and on behalf of
SGS-CSTC Ltd.



Fan Jingjie, JJ
Approved Signatory

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Remark :

- (1) The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:
<http://echa.europa.eu/web/guest/candidate-list-table>
 These lists are under evaluation by ECHA and may subject to change in the future.

- (2) Concerning article(s):

In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

SGS adopts the interpretation of ECHA for SVHC in article unless indicated otherwise. Detail explanation is available at the following link:

http://webstage.contribute.sgs.net/corpreach/documents/SGS-CTS_SVHC-paper-EN-11.pdf

- (3) Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

- (4) Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and No 790/2009, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

- a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.

- a mixture that is classified as dangerous according Dangerous Preparations Directive 1999/45/EC or classified as hazardous under the CLP Regulation (EC) No 1272/2008, when their concentrations are equal to, or greater than, those defined in the Article 3(3) of 1999/45/EC or the lower values given in Part 3 of Annex VI of Regulation (EC) No. 1272/2008; or

- a mixture is not classified as dangerous under Directive 1999/45/EC, but contains either:

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- (a) a substance posing human health or environmental hazards in an individual concentration of $\geq 1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or $\geq 0.2\%$ by volume for gaseous mixtures; or
- (b) a substance that is PBT, or vPvB in an individual concentration of $\geq 0.1\%$ by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
- (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of $\geq 0.1\%$ by weight for non-gaseous mixtures; or
- (d) a substance for which there are Europe-wide workplace exposure limits.

- (5) If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

Test Sample :

Sample Description :

Specimen No.	SGS Sample ID	Description
1	SHA12-046671.005	Silvery metal board

Test Method :

SGS In-House method-SHTC-CHEM-SOP-97-T. Analyzed by ICP-OES and UV-VIS.

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Test Result : (Substances in the Candidate List of SVHC)

Substance Name	CAS No.	EC No.	005 Concentration (%)	RL (%)
Aluminosilicate Refractory Ceramic Fibres [with Al ₂ O ₃ and SiO ₂ present in certain concentration ranges (Al ₂ O ₃ : 43.5 - 47 % w/w, and SiO ₂ : 49.5 - 53.5 % w/w, or Al ₂ O ₃ : 45.5-50.5 % w/w, and SiO ₂ : 48.5-54 % w/w)]*	650-017-00-8 (Index no.)	-	ND	0.005
Aluminosilicate Refractory Ceramic Fibres (with oxides of aluminium and silicon as the main components present in variable concentration ranges)*	650-017-00-8 (Index no.)	-	ND	0.005
Ammonium dichromate*	7789-09-5	232-143-1	ND	0.005
Arsenic acid*	7778-39-4	231-901-9	ND	0.005
Boric acid*	10043-35-3 11113-50-1	233-139-2 234-343-4	ND	0.005
Calcium arsenate*	7778-44-1	231-904-5	ND	0.005
Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid*	7738-94-5 13530-68-2	231-801-5 236-881-5	ND	0.005
Chromium trioxide*	1333-82-0	215-607-8	ND	0.005
Cobalt carbonate*	513-79-1	208-169-4	ND	0.005
Cobalt diacetate*	71-48-7	200-755-8	ND	0.005
Cobalt dichloride*	7646-79-9	231-589-4	ND	0.005
Cobalt dinitrate*	10141-05-6	233-402-1	ND	0.005
Cobalt sulphate*	10124-43-3	233-334-2	ND	0.005
Diarsenic pentaoxide*	1303-28-2	215-116-9	ND	0.005
Diarsenic trioxide*	1327-53-3	215-481-4	ND	0.005
Dichromium tris(chromate) *	24613-89-6	246-356-2	ND	0.005

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Substance Name	CAS No.	EC No.	005 Concentration (%)	RL (%)
Disodium tetraborate, anhydrous*	1303-96-4 1330-43-4 12179-04-3	215-540-4	ND	0.005
Lead chromate*	7758-97-6	231-846-0	ND	0.005
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*	12656-85-8	235-759-9	ND	0.005
Lead diazide, Lead azide*	13424-46-9	236-542-1	ND	0.005
Lead dipicrate*	6477-64-1	229-335-2	ND	0.005
Lead hydrogen arsenate*	7784-40-9	232-064-2	ND	0.005
Lead styphnate*	15245-44-0	239-290-0	ND	0.005
Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	215-693-7	ND	0.005
Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	ND	0.005
Potassium chromate*	7789-00-6	232-140-5	ND	0.005
Potassium dichromate*	7778-50-9	231-906-6	ND	0.005
Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	234-329-8	ND	0.005
Sodium chromate*	7775-11-3	231-889-5	ND	0.005
Sodium dichromate*	7789-12-0 and 10588-01-9	234-190-3	ND	0.005
Strontium chromate*	7789-06-2	232-142-6	ND	0.005
Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	ND	0.005
Triethyl arsenate*	15606-95-8	427-700-2	ND	0.005
Trilead diarsenate*	3687-31-8	222-979-5	ND	0.005

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Substance Name	CAS No.	EC No.	005 Concentration (%)	RL (%)
Zirconia Aluminosilicate Refractory Ceramic Fibres [with Al ₂ O ₃ , SiO ₂ and ZrO ₂ present in certain concentration ranges (Al ₂ O ₃ : 35 - 36 % w/w, SiO ₂ : 47.5-50 % w/w, and ZrO ₂ : 15-17 % w/w)]*	650-017-00-8 (Index no.)	-	ND	0.005
Zirconia Aluminosilicate Refractory Ceramic Fibres (with oxides of aluminium, silicon and zirconium as the main components present in variable concentration ranges)*	650-017-00-8 (Index no.)	-	ND	0.005

Notes :

- (1) RL = Reporting Limit. All RL are based on homogenous material
- (2) ND = Not detected (lower than RL), ND is denoted on the SVHC substance.
- (3) * The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website: www.reach.sgs.com/substance-of-very-high-concern-analysis-information-page.htm
 Calculated concentration of boric acid, disodium tetraborate, anhydrous and tetraboron disodium heptaoxide, hydrate are based on the water extractive boron and sodium by ICP-OES.
 Calculated concentration of arsenic acid and its salts are based on the identified arsenic by ICP-OES.
 RL = 0.005% is evaluated for element (i.e. cobalt, arsenic, lead, sodium, chromium, chromium (VI), silicon, aluminum, zirconium, boron, potassium and strontium respectively), except molybdenum RL=0.0005%
- (4) As the assessment in SHAEC1203420101, for specific material type (untreated glass, ceramic and metal), the presence of below organic SVHC is almost unlikely.

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Substance Name	CAS No.	EC No.
1,2,3-trichloropropane	96-18-4	202-486-1
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6
1,2-dichloroethane	107-06-2	203-458-1
2,2'-dichloro-4,4'-methylenedianiline	101-14-4	202-918-9
2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1
1-Methyl-2-pyrrolidone	872-50-4	212-828-1
2,4-Dinitrotoluene	121-14-2	204-450-0
2-Ethoxyethanol	110-80-5	203-804-1
2-Ethoxyethyl acetate	111-15-9	203-839-2
2-Methoxyethanol	109-86-4	203-713-7
4,4'-Diaminodiphenylmethane(MDA)	101-77-9	202-974-4
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4
Acrylamide	79-06-01	201-173-7
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5
Anthracene	120-12-7	204-371-1
Anthracene oil	90640-80-5	292-602-7
Anthracene oil, anthracene paste	90640-81-6	292-603-2
Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9
Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5
Anthracene oil, anthracene-low	90640-82-7	292-604-8
Benzyl butyl phthalate (BBP)	85-68-7	201-622-7
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	204-211-0
Bis(2-methoxyethyl) ether	111-96-6	203-924-4
Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6
Bis(tributyltin)oxide (TBTO)	56-35-9	200-268-0
Dibutyl phthalate (DBP)	84-74-2	201-557-4
Diisobutyl phthalate	84-69-5	201-553-2

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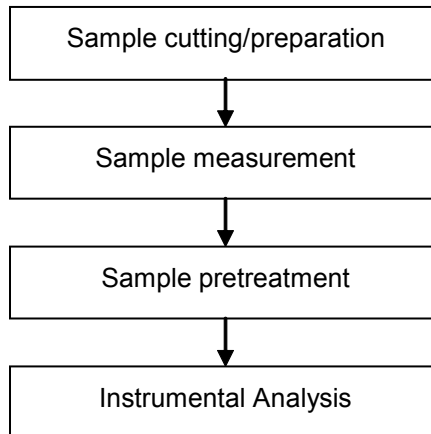


Substance Name	CAS No.	EC No.
Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) Δ	25637-99-4 and 3194-55-6	247-148-4 and 221-695-9
Hydrazine	7803-57-8 302-01-2	206-114-9
N,N-dimethylacetamide	127-19-5	204-826-4
Phenolphthalein	77-09-8	201-004-7
Pitch, coal tar, high temp.	65996-93-2	266-028-2
Trichloroethylene	79-01-6	201-167-4
Triethyl arsenate	15606-95-8	427-700-2
Tris(2-chloroethyl)phosphate	115-96-8	204-118-5

ATTACHMENTS

SVHC Testing Flow Chart

- 1) Name of the person who made testing: Swallow Sun / Caili Ma
- 2) Name of the person in charge of testing: Derek liao



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Sample photo:



SGS authenticate the photo on original report only

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