

CLASSIFICATION: N/A

PRODUCT DESCRIPTION: Utilizing state-of-the art remelt technology, Matalco produces high-quality products made from one of the earth's most plentiful recyclables – aluminum. Aluminum and its alloys are lightweight, durable, corrosion resistant and infinitely recyclable. This HPD covers Matalco's secondary aluminum products including billets for the extrusion and forging industries, as well as sheet ingot for the aluminum rolling sector. These products can have a multitude of applications once transformed, and can be used in various sectors such as Transportation, Machinery, Electrical, Consumer Durables, Packaging, Foil Stock, Building & Construction, and other applications. More specifically, this HPD presents an average chemical composition of four (4) series of secondary aluminum alloys produced by Matalco, 3XXX, 5XXX, 6XXX and 7XXX.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

- Nested Materials Method
 Basic Method

Threshold Disclosed Per

- Material
 Product

Threshold level

- 100 ppm
 1,000 ppm
 Per GHS SDS
 Per OSHA MSDS
 Other

Residuals/Impurities

- Considered
 Partially Considered
 Not Considered

Explanation(s) provided
for Residuals/Impurities?

- Yes No

Are All Substances Above the Threshold Indicated:

Characterized Yes No

Percent Weight and Role Provided?

Screened Yes No

Using Priority Hazard Lists with Results Disclosed?

Identified Yes No

Name and Identifier Provided?

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

SECONDARY ALUMINUM PRODUCTS [ALUMINUM LT-P1 | RES | END |
PHY SILICON LT-UNK | IRON LT-P1 | END | MANGANESE LT-P1 | END | MUL |
REP COPPER LT-UNK | CHROMIUM LT-P1 | RES | END | SKI MAGNESIUM
LT-UNK | PHY ZINC LT-P1 | AQU | END | MUL | PHY TITANIUM LT-UNK
GALLIUM LT-UNK]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen
Benchmark or List translator Score ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This HPD has been prepared using a Basic Inventory method with a product threshold of 100 ppm. The content inventory includes ranges to encompass all 3XXX, 5XXX, 6XXX and 7XXX secondary aluminum alloy series produced by Matalco Inc. Secondary aluminum billets and sheet slabs made by Matalco contain materials with Special Conditions (metal alloy ingredients, recycled content – mixture) as per the HPDC. Guidelines for reporting Special Conditions materials are still under development by HPDC. Matalco Inc. will update the HPD accordingly once these guidelines get published. Substances present in secondary aluminum products, as well as known residuals and impurities, have been disclosed at 100 ppm. Additional details about how residuals and impurities were considered are available in the appropriate sections.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: Inherently nonemitting source as per LEED®

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients, Option 1

Third Party Verified?

- Yes
 No

PREPARER: Self-Prepared

VERIFIER:

VERIFICATION #:

SCREENING DATE: 2018-05-14

PUBLISHED DATE: 2018-05-15

EXPIRY DATE: 2021-05-14



Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.1, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-1-standard

SECONDARY ALUMINUM PRODUCTS

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Information about residuals and impurities was provided by Matalco Inc. No residuals are present in the product above 100 ppm. Gallium is a normal impurity arising from the primary ore bauxite. It is present at low levels in the final product and its effect at those levels is negligible.

OTHER PRODUCT NOTES: The following inventory is an average composition of all 4 series of secondary aluminum alloys: 3XXX, 5XXX, 6XXX, and 7XXX Series. Ranges are introduced to cover all variations in composition that exist among the four alloy series. Matalco's products are composed mostly of pre-consumer (majority) and post-consumer recycled aluminum, with a minor portion of primary aluminum sometimes added to meet required chemistries. All elements presented in the inventory below either already exist in the recycled aluminum scrap or are added to the molten aluminum bath as alloying ingredients. These additives help to achieve the desired chemical specification and improve strength in the aluminum alloys. Their entry points into the aluminum recycling production process may vary. Elements such as Silicon (Silica or Silicates), Iron, Manganese, Chromium, and Titanium (Titanium Oxides) are minor or normal impurities in aluminum originating from bauxites. Iron is the main impurity in aluminum followed by Silicon.

ALUMINUM

ID: 7429-90-5

#: 87.3200 - 100.0000 GS: LT-P1 RC: Both NANO: No ROLE: Matrix

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H261 - In contact with water releases flammable gases

SUBSTANCE NOTES: See Other Material Notes.

SILICON

ID: 7440-21-3

#: 0.2000 - 0.6000 GS: LT-UNK RC: Both NANO: No ROLE: Contributes to high mechanical properties

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Other Material Notes.

IRON

ID: 7439-89-6

GS: **LT-P1** RC: **Both** NANO: **No** ROLE: **Improves high temperature strength**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: See Other Material Notes.

MANGANESE

ID: 7439-96-5

GS: **LT-P1** RC: **Both** NANO: **No** ROLE: **Reduces resistivity, prevents recrystallization**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: See Other Material Notes.

COPPER

ID: 7440-50-8

GS: **LT-UNK** RC: **Both** NANO: **No** ROLE: **Improves toughness, decreases elongation**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Other Material Notes.

CHROMIUM

ID: 7440-47-3

GS: **LT-P1** RC: **Both** NANO: **No** ROLE: **Fe corrector in anodizing, prevents recrystallization**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: See Other Material Notes.

MAGNESIUM

ID: 7439-95-4

GS: **LT-UNK** RC: **Both** NANO: **No** ROLE: **Offers corrosion resistance, aids formability and ductility**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES: See Other Material Notes.

ZINC

ID: 7440-66-6

GS: **LT-P1** RC: **Both** NANO: **No** ROLE: **Improves hardening**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ACUTE AQUATIC	EU - GHS (H-Statements)	H400 - Very toxic to aquatic life
CHRON AQUATIC	EU - GHS (H-Statements)	H410 - Very toxic to aquatic life with long lasting effects
ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES: See Other Material Notes.

TITANIUM

ID: 7440-32-6

GS: **LT-UNK** RC: **Both** NANO: **No** ROLE: **Important contribution to grain refinement**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found No warnings found on HPD Priority lists

SUBSTANCE NOTES: See Other Material Notes.

GALLIUM

ID: 7440-55-3

GS: **LT-UNK** RC: **Both** NANO: **No** ROLE: **Impurity/Residual**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: **See Residuals and Impurities Notes.**

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS

Inherently nonemitting source as per LEED®

CERTIFYING PARTY: **Self-declared**

ISSUE DATE: **2018-**

EXPIRY DATE:

CERTIFIER OR LAB: -

APPLICABLE FACILITIES: -

05-14

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: **Products that are inherently nonemitting sources of VOCs (stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood) are considered fully compliant without any VOC emissions testing if they do not include integral organic-based surface coatings, binders, or sealants.**

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

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MANUFACTURER INFORMATION

MANUFACTURER: **Matalco Inc.**
ADDRESS: **850 Intermodal Drive**
Brampton Ontario L6T 0B5, Canada
WEBSITE: **www.matalco.com**

CONTACT NAME: **Robert (Bob) Convery**
TITLE: **Manager, Sales and Marketing**
PHONE: **905 790 2511**
EMAIL: **rconvery@matalco.com**

KEY

OSHA MSDS Occupational Safety and Health Administration Material Safety Data Sheet
GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Hazard Types

AQU Aquatic toxicity	GLO Global warming	PHY Physical Hazard (reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive toxicity
DEV Developmental toxicity	MUL Multiple hazards	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	OZO Ozone depletion	LAN Land Toxicity
GEN Gene mutation	PBT Persistent Bioaccumulative Toxic	NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible Benchmark 1
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator Likely Benchmark 1
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS Unknown (no data on List Translator Lists)
BM-U Benchmark Unspecified (insufficient data to benchmark)	

Recycled Types

PreC Preconsumer (Post-Industrial)
PostC Postconsumer
Both Both Preconsumer and Postconsumer
Unk Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.