CLASSIFICATION: 05 40 00 - Cold-Formed Steel Framing

PRODUCT DESCRIPTION: To obtain cold-formed steel framing products with Residuals Disclosure levels of 1,000 ppm you must request mill certified steel when you place your order. If this request is made after manufacturing we cannot guarantee the desired Residuals Disclosure levels of 1,000 ppm.

Base Metal: Steel. Base Metal Coating: Galvanized with Passivation (if applicable).

Product ID - HPD covers Interior Framing Products, Interior Finishing Products, Exterior Framing Products, Floor Framing Products, Clips & Connectors, and Plaster Stucco & Veneer Products made of Cold-Formed Steel Framing. This includes, but is not limited to the following brand name products and systems, RedHeader PRO™ Rough Opening System, ProSTUD® Drywall Framing System, HDS®, MaxTrak®.

Additional MasterSpecs: 09 22 16.00 Finishes:Non-Structural Metal Framing, 09 24 00 Finishes: Cement Plastering, 09 21 16.23 Finishes: Gypsum Board Shaft Wall Assemblies.

SAFETY: Occupational Exposure Limits (OELs): Cold-Formed Steel Product as sold and shipped in its physical form does not present an inhalation, ingestion or contact hazard. However, operations such as burning, welding (high temperature), sawing, brazing, machining, grinding, etc. may produce fumes and/or particulates. Please refer to the ClarkDietrich Safety Data Sheet (SDS) for more information.

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 in 0 of 3 Materials

**Are All Substances Above the Threshold Indicated:**
- Characterized: Yes
- Percent Weight and Role Provided?: No

**Screened**
- Yes
- No

**Identified**
- Name and Identifier Provided?
- Yes
- No

**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**

STEEL | IRON | LT-P1 | END MANGANESE | LT-P1 | END | MUL | REP PHOSPHORUS BM-2 | PHY | MAM COPPER | LT-UNK NICKEL | LT-1 | CAN | RES | SKI | MAM | MUL CHROMIUM | LT-P1 | RES | END | SKI MOLYBDENUM LT-UNK CARBON LT-UNK VANADIUM | LT-1 | MUL | CAN | GEN NIUBIUM LT-UNK TITANIUM LT-UNK SULFUR | LT-UNK | SKI | GALVANIZATION (COATING) | ZINC | LT-P1 | AQU | PHY | END | MUL ALUMINUM | LT-P1 | RES | PHY | END | PASSIVATION COATING | PHOSPHORIC ACID | LT-P1 | SKI CHROMIUM (III) CHROMATE | LT-1 | CAN | DEL | REP | AQU | PHY | SKI | MUL | GEN CHROMIUM (VI) OXIDE | LT-1 | RES | CAN | DEL | REP | GEN | AQU | PHY | MAM | SKI | MUL PHOSPHORIC ACID | CHROMIUM(3++) SALT (1:1) | LT-P1 | SKI CHROMIUM FLUORIDE (CF3) | LT-P1 | SKI HYDROFLUORIC ACID BM-2 | MAM | SKI | MUL | PHY CHROMIUM NITRATE | LT-P1 | SKI MANGANESE | BIS(D-GLUCONATO-O1,O2)- (T-4) | LT-UNK MANGANESE CITRATE | NOGS SILICA | AMORPHOUS | LT-P1 | CAN NITRIC ACID | LT-P1 | PHY | SKI | MAM CHROMIUM (III) OXIDE | LT-P1 | SKI

**VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC emissions: Inherently non-emitting source per LEED®

**CERTIFICATIONS AND COMPLIANCE**

See Section 3 for additional listings.

CONSISTENCY WITH OTHER PROGRAMS
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>VERIFIER:</td>
<td>PUBLISHED DATE: 2018-07-15</td>
</tr>
<tr>
<td>No</td>
<td>VERIFICATION #:</td>
<td>EXPIRY DATE: 2021-07-11</td>
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</tbody>
</table>

Cold-Formed Steel Framing
hpdrepository.hpd-collaborative.org

HPD v2.1 created via HPDC Builder Page 2 of 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](http://www.hpd-collaborative.org/hpd-2-1-standard)

### STEEL

<table>
<thead>
<tr>
<th>%: 90.8200 - 99.6400</th>
<th>HPD URL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT THRESHOLD: 1000 ppm</td>
<td>RESIDUALS AND IMPURITIES CONSIDERED: No</td>
</tr>
</tbody>
</table>

**RESIDUALS AND IMPURITIES NOTES:** All commercial steel products contain small amounts of various elements in addition to those listed. These small quantities are frequently referred to as “trace” or “residual” elements that generally originate in the raw materials used. Steel products may contain the following trace or residual elements including typical percentages for the elements identified: aluminum (0.01-0.5), boron (≤0.005 max, typically 0.001%), calcium (≤ 0.005 max, typically 0.0003%), nitrogen (≤ 0.01 max, typically 0.006%), silicon (≤ 0.03 max, typically 0.002%), and tin (≤ 0.03 max, typically 0.002%). Other trace elements not frequently identified, may include antimony, arsenic, cadmium, cobalt, lead, and zirconium.

**OTHER MATERIAL NOTES:** Final percentage concentration of steel in the finished product depends on the ratio of steel (base metal) to the corrosion resistant galvanized coating. For example, a G90 coating on a 15-mil steel product represents 9.2% of the overall product weight, while a G40 coating on a 97-mil steel product only represents 0.4% of the overall product weight. These percentages will vary depending on the product mix ordered.

### IRON

<table>
<thead>
<tr>
<th>%: 96.0600 - 97.8090</th>
<th>GS: LT-P1</th>
<th>RC: Both</th>
<th>NANO: No</th>
<th>ROLE: Base Metal</th>
</tr>
</thead>
</table>

**HAZARDS:**

ENDOCRINE
TEDX - Potential Endocrine Disruptors
Potential Endocrine Disruptor

**SUBSTANCE NOTES:**

### MANGANESE

<table>
<thead>
<tr>
<th>%: 1.1500 - 1.6500</th>
<th>GS: LT-P1</th>
<th>RC: Both</th>
<th>NANO: No</th>
<th>ROLE: Alloying Metal</th>
</tr>
</thead>
</table>

**HAZARDS:**

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:**
### PHOSPHORUS

**ID:** 7723-14-0  
**%:** 0.2000 - 0.2300  
**GS:** BM-2  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal

**HAZARDS:**

<table>
<thead>
<tr>
<th>PHYSICAL HAZARD (REACTIVE)</th>
<th>AGENCY(IES) WITH WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU - GHS (H-Statements)</td>
<td>H228 - Flammable solid</td>
</tr>
</tbody>
</table>

**MAMMALIAN**  
**US EPA - EPCRA Extremely Hazardous Substances**  
**Extremely Hazardous Substances**

**SUBSTANCE NOTES:**

### COPPER

**ID:** 7440-50-8  
**%:** 0.2000 - 0.5000  
**GS:** LT-UNK  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal

**HAZARDS:**

None Found  
No warnings found on HPD Priority lists

**SUBSTANCE NOTES:**

### NICKEL

**ID:** 7440-02-0  
**%:** 0.2000 - 0.3000  
**GS:** LT-1  
**RC:** None  
**NANO:** No  
**ROLE:** Alloying Metal

**HAZARDS:**

<table>
<thead>
<tr>
<th>CANCER</th>
<th>AGENCY(IES) WITH WARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC</td>
<td>Group 1 - Agent is Carcinogenic to humans</td>
</tr>
<tr>
<td>IARC</td>
<td>Group 2b - Possibly carcinogenic to humans</td>
</tr>
<tr>
<td>CA EPA - Prop 65</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>US CDC - Occupational Carcinogens</td>
<td>Occupational Carcinogen</td>
</tr>
<tr>
<td>US NIH - Report on Carcinogens</td>
<td>Reasonably Anticipated to be Human Carcinogen</td>
</tr>
<tr>
<td>AOECC - Asthmagens</td>
<td>Asthmagen (ARs) - sensitizer-induced - inhalable forms only</td>
</tr>
<tr>
<td>EU - GHS (H-Statements)</td>
<td>H317 - May cause an allergic skin reaction</td>
</tr>
<tr>
<td>EU - GHS (H-Statements)</td>
<td>H351 - Suspected of causing cancer</td>
</tr>
<tr>
<td>EU - GHS (H-Statements)</td>
<td>H372 - Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>German FEA - Substances Hazardous to Waters</td>
<td>Class 2 - Hazard to Waters</td>
</tr>
<tr>
<td>MAK</td>
<td>Carcinogen Group 1 - Substances that cause cancer in man</td>
</tr>
<tr>
<td>MAK</td>
<td>Sensitizing Substance Sah - Danger of airway &amp; skin sensitization</td>
</tr>
</tbody>
</table>
### CHROMIUM

**ID:** 7440-47-3  
**%:** 0.1500 - 0.3000  
**GS:** LT-P1  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
**RESPIRATORY**  
AOEC - Asthmagens  
Asthmagens (ARs) - sensitizer-induced - inhalable forms only  
**ENDOCRINE**  
TEDX - Potential Endocrine Disruptors  
Potential Endocrine Disruptor  
**SKIN SENSITIZE**  
MAK  
Sensitizing Substance Sh - Danger of skin sensitization  

### MOLYBDENUM

**ID:** 7439-98-7  
**%:** 0.0600 - 0.1600  
**GS:** LT-UNK  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
None Found  
No warnings found on HPD Priority lists  

### CARBON

**ID:** 7440-44-0  
**%:** 0.0300 - 0.2500  
**GS:** LT-UNK  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
None Found  
No warnings found on HPD Priority lists  

### VANADIUM

**ID:** 7440-62-2  
**%:** 0.0080 - 0.2000  
**GS:** LT-1  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
**MULTIPLE**  
German FEA - Substances Hazardous to Waters  
Class 3 - Severe Hazard to Waters  
**CANCER**  
MAK  
Carcinogen Group 2 - Considered to be carcinogenic for man  
**GENE MUTATION**  
MAK  
Germ Cell Mutagen 2
### NIOBIUM

**ID:** 7440-03-1  
**%:** 0.0080 - 0.1500  
**GS:** LT-UNK  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
None Found  
No warnings found on HPD Priority lists  

### TITANIUM

**ID:** 7440-32-6  
**%:** 0.0080 - 0.2000  
**GS:** LT-UNK  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
None Found  
No warnings found on HPD Priority lists  

### SULFUR

**ID:** 7704-34-9  
**%:** 0.0070 - 0.0400  
**GS:** LT-UNK  
**RC:** Both  
**NANO:** No  
**ROLE:** Alloying Metal  

**HAZARDS:**  
**SKIN IRRITATION**  
EU - GHS (H-Statements)  
H315 - Causes skin irritation  

### GALVANIZATION (COATING)

**%:** 0.3600 - 9.1800  
**HPD URL:**  

**PRODUCT THRESHOLD:** 1000 ppm  
**RESIDUALS AND IMPURITIES CONSIDERED:** No  

**RESIDUALS AND IMPURITIES NOTES:** All commercial galvanizing products contain small amounts of various elements in addition to those listed. These small quantities of impurities are frequently referred to as “trace” or “residual” elements that generally originate in the raw or recycled materials used. Galvanizing products may contain the following trace or residual elements including typical maximum percentages for the elements identified: lead (0.01%), iron (0.01%), cadmium (0.01%), copper (0.01%), other elements (0.01%) balance by difference.  

**OTHER MATERIAL NOTES:** The minimum and maximum percentages vary based on the thickness of base steel ordered and the level or corrosion protection ordered. For example a G40 coating on 97-mil sheet steel would only be 0.36% of the total weight, while a G90 coating on 15-mil sheet steel would be 9.18% of the total weight. This will vary depending on customer order requirements.  

### ZINC

**ID:** 7440-66-6
### Aluminum

**ID:** 7429-90-5  

<table>
<thead>
<tr>
<th>%: 0.2500 - 1.0000</th>
<th>GS: LT-P1</th>
<th>RC: Both</th>
<th>NANO: No</th>
<th>ROLE: Corrosion Protection</th>
</tr>
</thead>
</table>

**HAZARDS:**

- **RESONATORY**  
  - AOEC - Asthmagens  
  - Asthmagen (ARs) - sensitizer-induced - inhalable forms only

- **PHYSICAL HAZARD (REACTIVE)**  
  - EU - GHS (H-Statements)  
  - H228 - Flammable solid
  
  - EU - GHS (H-Statements)  
  - H250 - Catches fire spontaneously if exposed to air
  
  - EU - GHS (H-Statements)  
  - H261 - In contact with water releases flammable gases which may ignite spontaneously

- **ENDOCRINE**  
  - TEDX - Potential Endocrine Disruptors  
  - Potential Endocrine Disruptor

**SUBSTANCE NOTES:** Corrosion Protection

### Passivation Coating

| %: 0.0080 - 0.0980 | HPD URL: |  
|-------------------|--------|---|

**PRODUCT THRESHOLD:** 1000 ppm  

**RESIDUALS AND IMPURITIES CONSIDERED:** No

**RESIDUALS AND IMPURITIES NOTES:** These are highly controlled mixtures with no known impurities.

**OTHER MATERIAL NOTES:** Steel sheet coils are galvanized at the steel mill, and then as an industry standard an additional passivation coating, variations all commonly known as “chem treat”, is applied. This is an additional corrosion protection that helps prevent the formation of zinc oxide otherwise known as “white rust”. There are many variations of “chem treat” used across the industry, and due to difficulties in tracing which specific “chem treat” was used on each order all possible hazardous components are listed here.

### Phosphoric Acid

**ID:** 7664-38-2  

<table>
<thead>
<tr>
<th>%: 10.0000 - 30.0000</th>
<th>GS: LT-P1</th>
<th>RC: UNK</th>
<th>NANO: No</th>
<th>ROLE: Corrosion Protection</th>
</tr>
</thead>
</table>

**HAZARDS:**

- **AGENCIES WITH WARNINGS:**
  
  - **ACUTE AQUATIC**  
    - EU - GHS (H-Statements)  
    - H400 - Very toxic to aquatic life
  
  - **CHRONIC AQUATIC**  
    - EU - GHS (H-Statements)  
    - H410 - Very toxic to aquatic life with long lasting effects
  
  - **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
  
  - **ENDOCRINE**  
    - TEDX - Potential Endocrine Disruptors  
    - Potential Endocrine Disruptor

**SUBSTANCE NOTES:** Corrosion Protection
HAZARDS:

SKIN IRRITATION

AGENCY(IES) WITH WARNINGS:

EU - GHS (H-Statements)

H314 - Causes severe skin burns and eye damage

SUBSTANCE NOTES: Corrosion Protection

CHROMIUM (III) CHROMATE

ID: 24613-89-6

%: 10.0000 - 20.0000

GS: LT-1
RC: UNK
NANO: No
ROLE: Corrosion Protection

HAZARDS:

CANCER

IARC

Group 1 - Agent is Carcinogenic to humans

CANCER

CA EPA - Prop 65

Carcinogen

DEVELOPMENTAL

CA EPA - Prop 65

Developmental toxicity

REPRODUCTIVE

CA EPA - Prop 65

Reproductive Toxicity - Female

REPRODUCTIVE

CA EPA - Prop 65

Reproductive Toxicity - Male

CANCER

US CDC - Occupational Carcinogens

Occupational Carcinogen

CANCER

EU - SVHC Authorisation List

Carcinogenic - Banned unless Authorised

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

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H271 - May cause fire or explosion; strong oxidiser

SKIN IRRITATION

EU - GHS (H-Statements)

H314 - Causes severe skin burns and eye damage

SKIN SENSITIZE

EU - GHS (H-Statements)

H317 - May cause an allergic skin reaction

CANCER

EU - GHS (H-Statements)

H350 - May cause cancer

CANCER

EU - GHS (H-Statements)

H350i - May cause cancer by inhalation

CANCER

EU - REACH Annex XVII CMRs

Carcinogen Category 2 - Substances which should be regarded as if they are Carcinogenic to man

MULTIPLE

ChemSec - SIN List

CMR - Carcinogen, Mutagen &/or Reproductive Toxicant

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 3 - Severe Hazard to Waters

CANCER

MAK

Carcinogen Group 1 - Substances that cause cancer in man

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

CANCER

Korea - GHS

Carcinogenicity - Category 1 [H350 - May cause cancer]

CANCER

EU - Annex VI CMRs

Carcinogen Category 1B - Presumed Carcinogen based on animal evidence

GENE MUTATION

MAK

Germ Cell Mutagen 2

GENE MUTATION

Australia - GHS

H340 - May cause genetic defects

CANCER

Australia - GHS

H350 - May cause cancer
**SUBSTANCE NOTES:** Corrosion Protection

## CHROMIUM (VI) OXIDE

<table>
<thead>
<tr>
<th>%: 7.0000 - 13.0000</th>
<th>GS: LT-1</th>
<th>RC: UNK</th>
<th>NANO: No</th>
<th>ROLE: Corrosion Protection</th>
</tr>
</thead>
</table>

### HAZARDS:

<table>
<thead>
<tr>
<th>Category</th>
<th>Agency(ies) with warnings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory</td>
<td>AOEC - Asthmagens</td>
<td>Asthmagen (Rs) - sensitizer-induced</td>
</tr>
<tr>
<td>Cancer</td>
<td>IARC</td>
<td>Group 1 - Agent is Carcinogenic to humans</td>
</tr>
<tr>
<td>Cancer</td>
<td>CA EPA - Prop 65</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>Developmental</td>
<td>CA EPA - Prop 65</td>
<td>Developmental toxicity</td>
</tr>
<tr>
<td>Reproductive</td>
<td>CA EPA - Prop 65</td>
<td>Reproductive Toxicity - Female</td>
</tr>
<tr>
<td>Reproductive</td>
<td>CA EPA - Prop 65</td>
<td>Reproductive Toxicity - Male</td>
</tr>
<tr>
<td>Cancer</td>
<td>US CDC - Occupational Carcinogens</td>
<td>Occupational Carcinogen</td>
</tr>
<tr>
<td>Cancer</td>
<td>US NIH - Report on Carcinogens</td>
<td>Known to be a human Carcinogen</td>
</tr>
<tr>
<td>Cancer</td>
<td>EU - SVHC Authorisation List</td>
<td>Carcinogenic - Banned unless Authorised</td>
</tr>
<tr>
<td>Gene Mutation</td>
<td>EU - SVHC Authorisation List</td>
<td>Mutagenic - Banned unless Authorised</td>
</tr>
<tr>
<td>Acute Aquatic</td>
<td>EU - GHS (H-Statements)</td>
<td>H400 - Very toxic to aquatic life</td>
</tr>
<tr>
<td>Chronic Aquatic</td>
<td>EU - GHS (H-Statements)</td>
<td>H410 - Very toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>Physical Hazard (Reactive)</td>
<td>EU - GHS (H-Statements)</td>
<td>H271 - May cause fire or explosion; strong oxidiser</td>
</tr>
<tr>
<td>Mammalian</td>
<td>EU - GHS (H-Statements)</td>
<td>H301 - Toxic if swallowed</td>
</tr>
<tr>
<td>Mammalian</td>
<td>EU - GHS (H-Statements)</td>
<td>H311 - Toxic in contact with skin</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>EU - GHS (H-Statements)</td>
<td>H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Sensitize</td>
<td>EU - GHS (H-Statements)</td>
<td>H317 - May cause an allergic skin reaction</td>
</tr>
<tr>
<td>Mammalian</td>
<td>EU - GHS (H-Statements)</td>
<td>H330 - Fatal if inhaled</td>
</tr>
<tr>
<td>Respiratory</td>
<td>EU - GHS (H-Statements)</td>
<td>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled</td>
</tr>
<tr>
<td>Gene Mutation</td>
<td>EU - GHS (H-Statements)</td>
<td>H340 - May cause genetic defects</td>
</tr>
<tr>
<td>Cancer</td>
<td>EU - GHS (H-Statements)</td>
<td>H350 - May cause cancer</td>
</tr>
<tr>
<td>Cancer</td>
<td>EU - GHS (H-Statements)</td>
<td>H350i - May cause cancer by inhalation</td>
</tr>
<tr>
<td>Reproductive</td>
<td>EU - GHS (H-Statements)</td>
<td>H361f - Suspected of damaging fertility</td>
</tr>
<tr>
<td>Organ Toxicant</td>
<td>EU - GHS (H-Statements)</td>
<td>H372 - Causes damage to organs through prolonged or repeated exposure</td>
</tr>
<tr>
<td>Cancer</td>
<td>EU - REACH Annex XVII CMRs</td>
<td>Carcinogen Category 1 - Substances known to be Carcinogenic to man</td>
</tr>
<tr>
<td>Gene Mutation</td>
<td>EU - REACH Annex XVII CMRs</td>
<td>Mutagen Category 2 - Substances which should be regarded as if they are Mutagenic to man</td>
</tr>
<tr>
<td>MULTIPLE</td>
<td>ChemSec - SIN List</td>
<td>CMR - Carcinogen, Mutagen &amp;/or Reproductive Toxicant</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>MULTIPLE</td>
<td>German FEA - Substances Hazardous to Waters</td>
<td>Class 3 - Severe Hazard to Waters</td>
</tr>
<tr>
<td>CANCER</td>
<td>MAK</td>
<td>Carcinogen Group 1 - Substances that cause cancer in man</td>
</tr>
<tr>
<td>SKIN SENSITIZE</td>
<td>MAK</td>
<td>Sensitizing Substance Sh - Danger of skin sensitization</td>
</tr>
<tr>
<td>CANCER</td>
<td>Korea - GHS</td>
<td>Carcinogenicity - Category 1 [H350 - May cause cancer]</td>
</tr>
<tr>
<td>CANCER</td>
<td>EU - Annex VI CMRs</td>
<td>Carcinogen Category 1A - Known human Carcinogen based on human evidence</td>
</tr>
<tr>
<td>GENE MUTATION</td>
<td>EU - Annex VI CMRs</td>
<td>Mutagen - Category 1B</td>
</tr>
<tr>
<td>GENE MUTATION</td>
<td>New Zealand - GHS</td>
<td>6.6A - Known or presumed human mutagens</td>
</tr>
<tr>
<td>CANCER</td>
<td>New Zealand - GHS</td>
<td>6.7A - Known or presumed human carcinogens</td>
</tr>
<tr>
<td>REPRODUCTIVE</td>
<td>New Zealand - GHS</td>
<td>6.8A - Known or presumed human reproductive or developmental toxicants</td>
</tr>
<tr>
<td>CANCER</td>
<td>Japan - GHS</td>
<td>Carcinogenicity - Category 1A</td>
</tr>
<tr>
<td>GENE MUTATION</td>
<td>Japan - GHS</td>
<td>Germ cell mutagenicity - Category 1B</td>
</tr>
<tr>
<td>REPRODUCTIVE</td>
<td>Japan - GHS</td>
<td>Toxic to reproduction - Category 1B</td>
</tr>
<tr>
<td>GENE MUTATION</td>
<td>MAK</td>
<td>Germ Cell Mutagen 2</td>
</tr>
<tr>
<td>CANCER</td>
<td>Australia - GHS</td>
<td>H350 - May cause cancer</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Corrosion Protection

### PHOSPHORIC ACID, CHROMIUM(3++) SALT (1:1)

**ID:** 7789-04-0

<table>
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<tr>
<th>%: 1.0000 - 10.0000</th>
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<th>NANO: No</th>
<th>ROLE: Corrosion Protection</th>
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**HAZARDS:**

| SKIN SENSITIZE | MAK | Sensitizing Substance Sh - Danger of skin sensitization |

**SUBSTANCE NOTES:** Corrosion Protection

### CHROMIUM FLUORIDE (CRF3)

**ID:** 7788-97-8

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<th>%: 1.0000 - 5.0000</th>
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**HAZARDS:**

| SKIN SENSITIZE | MAK | Sensitizing Substance Sh - Danger of skin sensitization |

**SUBSTANCE NOTES:** Corrosion Protection
# HYDROFLUORIC ACID

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**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Agency Details</th>
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<tbody>
<tr>
<td>MAMMALIAN</td>
<td>EU - GHS (H-Statements)</td>
</tr>
<tr>
<td></td>
<td>H300 - Fatal if swallowed</td>
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<tr>
<td>MAMMALIAN</td>
<td>EU - GHS (H-Statements)</td>
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<tr>
<td></td>
<td>H310 - Fatal in contact with skin</td>
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<tr>
<td>SKIN IRRITATION</td>
<td>EU - GHS (H-Statements)</td>
</tr>
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<td></td>
<td>H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>MAMMALIAN</td>
<td>EU - GHS (H-Statements)</td>
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<td></td>
<td>H330 - Fatal if inhaled</td>
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<td>MULTIPLE</td>
<td>German FEA - Substances Hazardous to Waters</td>
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<td></td>
<td>Class 2 - Hazard to Waters</td>
</tr>
<tr>
<td>MAMMALIAN</td>
<td>US EPA - EPCRA Extremely Hazardous Substances</td>
</tr>
<tr>
<td></td>
<td>Extremely Hazardous Substances</td>
</tr>
<tr>
<td>PHYSICAL HAZARD (REACTIVE)</td>
<td>Korea - GHS</td>
</tr>
<tr>
<td></td>
<td>H290 - May be corrosive to metals</td>
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</tbody>
</table>

**SUBSTANCE NOTES:** Corrosion Protection

---

# CHROMIUM NITRATE

<table>
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<tr>
<th>%: 1.0000 - 5.0000</th>
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**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Agency Details</th>
</tr>
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<tbody>
<tr>
<td>SKIN SENSITIZE</td>
<td>MAK</td>
</tr>
<tr>
<td></td>
<td>Sensitizing Substance Sh - Danger of skin sensitization</td>
</tr>
</tbody>
</table>

**SUBSTANCE NOTES:** Corrosion Protection

---

# MANGANESE, BIS(D-GLUCONATO-O1,O2)-, (T-4)-

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<th>ROLE: Corrosion Protection</th>
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</table>

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Corrosion Protection

---

# MANGANESE CITRATE

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<th>GS: NoGS</th>
<th>RC: UNK</th>
<th>NANO: No</th>
<th>ROLE: Corrosion Protection</th>
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</thead>
</table>

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

**SUBSTANCE NOTES:** Corrosion Protection
SILICA, AMORPHOUS

ID: 7631-86-9

%: 1.0000 - 5.0000

GS: LT-P1

RC: UNK

NANO: No

ROLE: Corrosion Protection

HAZARDS:

AGENCY(IES) WITH WARNINGS:

CANCER

Japan - GHS

Carcinogenicity - Category 1A

NITRIC ACID

ID: 7697-37-2

%: 1.0000 - 5.0000

GS: LT-P1

RC: UNK

NANO: No

ROLE: Corrosion Protection

HAZARDS:

AGENCY(IES) WITH WARNINGS:

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H272 - May intensify fire; oxidiser

SKIN IRRITATION

EU - GHS (H-Statements)

H314 - Causes severe skin burns and eye damage

MAMMALIAN

US EPA - EPCRA Extremely Hazardous Substances

Extremely Hazardous Substances

PHYSICAL HAZARD (REACTIVE)

Korea - GHS

H271 - May cause fire or explosion; strong oxidizer

CHROMIUM (III) OXIDE

ID: 1308-38-9

%: 0.1000 - 1.0000

GS: LT-P1

RC: UNK

NANO: No

ROLE: Corrosion Protection

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN SENSITIZE

MAK

Sensitizing Substance Sh - Danger of skin sensitization

SUBSTANCE NOTES: Corrosion Protection
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 non-emitting source per LEED®

CERTIFYING PARTY: Self-declared

CERTIFICATE URL:

CERTIFICATION AND COMPLIANCE NOTES: Cold-Formed Steel Framing is considered an inherently non-emitting source per LEED®

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.

STEEL TAPPING SCREWS FOR COLD-FORMED STEEL FRAMING CONNECTIONS

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:
Self-drilling and self-piercing screws (per ASTM C1513) are used to connect cold-formed steel framing members together in preparation to receive gypsum panel products.

Section 5: General Notes

ClarkDietrich Building Systems offers a comprehensive lineup of steel construction products and services across the United States and abroad. Using cold-formed steel, we manufacture innovative products for interior framing, interior finishing, exterior framing, floor and roof framing, as well as clips, connectors, metal lath, barrier mesh and accessories. As the demands for higher performance in all aspects of today's buildings rise, we partner with teams of architects, engineers, building developers and owners, contractors, and more on projects of all sizes, scope, and complexity. Far beyond products, our collaborations increasingly involve efforts and expertise that support smarter installation and design, including resources for BIM and ClarkDietrich Engineering Services LLC. Formed in 2011 through the combination of two established market leaders—ClarkWestern Building Systems and Dietrich Metal Framing—ClarkDietrich is in an unprecedented position to help you bring change to the built environment.
Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: ClarkDietrich Building Systems
ADDRESS: 9050 Centre Pointe Drive #400
West Chester Ohio 45069, United States
WEBSITE: www.clarkdietrich.com

CONTACT NAME: Adam Shoemaker
TITLE: Technical Services
PHONE: (888) 437-3244
EMAIL: adam.shoemaker@clarkdietrich.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
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation

GLO Global warming
MAM Mammalian/systemic/toxicity
MUL Multiple hazards
NEU Neurotoxicity
OZO Ozone depletion
PBT Persistent Bioaccumulative Toxic
PHY Physical Hazard (reactive)
REP Reproductive toxicity
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
LAN Land Toxicity
NF Not found on Priority Hazard Lists

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (insufficient data to benchmark)

LT-P1 List Translator Possible Benchmark 1
LT-1 List Translator Likely Benchmark 1
LT-UNK List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
NoGS Unknown (no data on List Translator Lists)

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.