

STAY/STEEL LN 25

Version 2.0 Revision Date: 12/09/2019 SDS Number: 102000024251 Date of last issue: 08/21/2019
 Date of first issue: 03/26/2018

SECTION 1. IDENTIFICATION

Product name : STAY/STEEL LN 25
 Product code : 022172BF0

Manufacturer or supplier's details

Company name of supplier : ECKART America Corporation
 Address : 830 East Erie Street
 Painesville OH 44077
 Telephone : 866-458-7837
 Telefax : (440) 354-6224
 Emergency telephone : **CHEMTREC:** 800-424-9300
CHEMTREC: 1-703-527-3387 (International)

NCEC:

(contract no. ECKART29003-NCEC)
 US: +1 866 928 0789 (Toll free)
 Canada: +1 800 579 7421 (Toll Free)
 Mexico: +52 55 5004 8763

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Combustible dust

GHS label elements

Signal Word : Warning
 Hazard Statements : May form combustible dust concentrations in air.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical name	CAS-No.	Concentration (% w/w)
Iron	7439-89-6	>= 70 - < 90
Chromium	7440-47-3	>= 10 - < 20
Manganese	7439-96-5	>= 5 - < 10
Molybdenum	7439-98-7	>= 1 - < 5

Actual concentration is withheld as a trade secret

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SECTION 4. FIRST AID MEASURES

General advice	:	No hazards which require special first aid measures. Take the victim into fresh air.
If inhaled	:	If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	:	Wash off immediately with soap and plenty of water.
In case of eye contact	:	Remove contact lenses. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	None known.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Dry sand Special powder against metal fire
Unsuitable extinguishing media	:	ABC powder Carbon dioxide (CO ₂) Water Foam
Specific hazards during fire fighting	:	Contact with water liberates extremely flammable gas (hydrogen).
Further information	:	Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid dust formation. Use personal protective equipment. Evacuate personnel to safe areas.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Use mechanical handling equipment. Do not use a vacuum cleaner.

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SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- During processing, dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. Earthing of containers and apparatuses is essential. Use explosion-proof equipment. When transferring from one container to another apply earthing measures and use conductive hose material.
- Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Avoid creating dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat and sources of ignition. Do not smoke.
- Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards. Reaction with water liberates extremely flammable gas (hydrogen) Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Keep away from sources of ignition - No smoking.
- Technical measures/Precautions : Protect from humidity and water.
- Materials to avoid : No materials to be especially mentioned.
- Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
- Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Iron	7439-89-6	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
			15 mg/m3	OSHA Z-3
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
			15 Million particles per cubic foot	OSHA Z-3
Chromium	7440-47-3	TWA	0.5 mg/m3	NIOSH REL
			0.5 mg/m3	ACGIH
			1 mg/m3	OSHA P0
			0.5 mg/m3 (chromium)	OSHA Z-1
			1 mg/m3	OSHA P0
			0.5 mg/m3	NIOSH REL
			1 mg/m3 (chromium)	OSHA Z-1
			0.5 mg/m3 (chromium)	OSHA Z-1
			0.5 mg/m3 (chromium)	ACGIH
Manganese	7439-96-5	TWA	0.2 mg/m3	ACGIH
			5 mg/m3	OSHA Z-1
		TWA (Fumes)	1 mg/m3 (Manganese)	NIOSH REL
		ST (Fumes)	3 mg/m3 (Manganese)	NIOSH REL
			1 mg/m3 (Manganese)	OSHA P0
		STEL	3 mg/m3 (Manganese)	OSHA P0
			1 mg/m3 (Manganese)	NIOSH REL
		ST (Fumes)	3 mg/m3 (Manganese)	NIOSH REL
			1 mg/m3 (Manganese)	OSHA P0

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		STEL (Fumes)	3 mg/m ³ (Manganese)	OSHA P0
		TWA (Inhalable fraction)	0.1 mg/m ³ (Manganese)	ACGIH
		TWA (Respirable fraction)	0.02 mg/m ³ (Manganese)	ACGIH
		TWA (Fumes)	1 mg/m ³ (Manganese)	NIOSH REL
		ST (Fumes)	3 mg/m ³ (Manganese)	NIOSH REL
Molybdenum	7439-98-7	TWA (Inhalable fraction)	10 mg/m ³	ACGIH
		TWA (Respirable fraction)	3 mg/m ³	ACGIH
		TWA (Inhalable fraction)	10 mg/m ³ (Molybdenum)	ACGIH
		TWA (Respirable fraction)	3 mg/m ³ (Molybdenum)	ACGIH
		TWA (total dust)	15 mg/m ³ (Molybdenum)	OSHA Z-1
		TWA (Total dust)	10 mg/m ³ (Molybdenum)	OSHA P0

Personal protective equipment

- Respiratory protection : Use suitable breathing protection if workplace concentration requires.
Breathing apparatus with filter.
P1 filter
- Hand protection
Material : Leather
Glove length : Long sleeve gloves
- Remarks : Leather gloves The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
- Eye protection : Safety glasses
Face-shield
- Skin and body protection : Anti-static and fire resistant protective clothing. DIN EN 11612; EN 533; EN 1149-1; Anti-static safety shoes

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Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Color	:	gray
Odor	:	odorless
Odor Threshold	:	No data available
pH	:	No data available
Melting point/range	:	660 °C
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	combustible dust
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	30 g/m ³
Vapor pressure	:	No data available
Relative density	:	No data available
Solubility(ies)	:	
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. Contact with acids and alkalis may release hydrogen.
Conditions to avoid	:	No data available
Incompatible materials	:	Acids Bases Oxidizing agents Water

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Components:**Chromium:**

Acute oral toxicity : LD50 Oral: > 5,000 mg/kg
Acute inhalation toxicity : LC50: > 5.41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Manganese:

Acute oral toxicity : LD50 Oral: > 2,000 mg/kg
Acute inhalation toxicity : LC50: 5.14 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Molybdenum:

Acute oral toxicity : LD50 Oral: > 2,000 mg/kg
Acute inhalation toxicity : LC50: ca. 2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

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Carcinogenicity

Not classified based on available information.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Components:

Iron:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

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Components:**Iron:**

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : In accordance with local and national regulations.
 Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
 In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION**Domestic regulation**

49 CFR : Not classified as dangerous in the meaning of transport regulations.

International Regulations

Remarks : Not classified as dangerous in the meaning of transport regulations.

ADR : Not classified as dangerous in the meaning of transport regulations.

IATA-DGR : Not classified as dangerous in the meaning of transport regulations.

IMDG-Code : Not classified as dangerous in the meaning of transport regulations.

Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)

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Chromium	7440-47-3	5000
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SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Chromium	7440-47-3	>= 10 - < 20 %
Manganese	7439-96-5	>= 5 - < 10 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Chromium	7440-47-3	%
Manganese	7439-96-5	%

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

Chromium	7440-47-3	15.8443 %
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US State Regulations**Massachusetts Right To Know**

Chromium	7440-47-3
Manganese	7439-96-5
Molybdenum	7439-98-7
Nickel	7440-02-0

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Pennsylvania Right To Know

Iron	7439-89-6
Chromium	7440-47-3
Manganese	7439-96-5
Molybdenum	7439-98-7
Nickel	7440-02-0

California Prop. 65

WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



WARNING: This product can expose you to chemicals including Nickel, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Iron	7439-89-6
Chromium	7440-47-3
Manganese	7439-96-5
Molybdenum	7439-98-7

California Permissible Exposure Limits for Chemical Contaminants

Iron	7439-89-6
Chromium	7440-47-3
Manganese	7439-96-5
Molybdenum	7439-98-7

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The ingredients of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL
 TSCA : On TSCA Inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
 NIOSH REL : USA. NIOSH Recommended Exposure Limits
 OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
 OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
 ACGIH / TWA : 8-hour, time-weighted average
 NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
 NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
 OSHA P0 / TWA : 8-hour time weighted average
 OSHA P0 / STEL : Short-term exposure limit
 OSHA Z-1 / TWA : 8-hour time weighted average
 OSHA Z-1 / C : Ceiling
 OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -

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Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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