Material Safety Data Sheet

Issuing Date 23-Nov-2011 **Revision Date** **Revision Number** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Stainless Steel and Alloys of Stainless Steel**

Distributor
ThyssenKrupp Materials NA, Inc.
22355 W. Eleven Mile Road
Southfield, Michigan 48034
TEL: 248-233-5681

Emergency Telephone Number 248-233-5681

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Non-combustible as supplied.
Small chips, fines and dust from processing may be readily ignitable.
Hazardous fumes can also occur in post-processing operations
Product dust may be irritating to eyes, skin and respiratory system.
Dust may form explosive mixture in air
Possibly cancer hazard by inhalation

Appearance Metallic, Solid **Physical State** Solid. **Odor** Odorless

OSHA Regulatory Status

General Hazard Statement: Solid metallic products are generally classified as "articles" and do not constitute hazardous materials in solid form under the definitions of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Any articles manufactured from these solid products would be generally classified as non-hazardous. However, some hazardous elements contained in these products can be emitted under certain processing conditions such as but not limited to: burning, melting, cutting, sawing, brazing, grinding, machining, milling, and welding.

Potential Health Effects

Principle Routes of Exposure Eye contact. Skin contact. Inhalation.

Acute Toxicity

Eyes Dust contact with the eyes can lead to mechanical irritation.

Skin Contact with dust can cause mechanical irritation or drying of the skin. Contact with oils from processing may cause irritation. Prolonged skin contact may defat the skin and produce dermatitis. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Inhalation May be harmful if inhaled. Inhalation of dust in high concentration may cause irritation of respiratory system. Inhalation of fumes may cause metal-fume fever.

Ingestion May be harmful if swallowed. May cause additional affects as listed under "Inhalation".

Chronic Effects Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. Prolonged exposure may cause chronic effects. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Elevated temperature processing such as welding and plasma arc cutting may release hazardous fumes. Overexposure to metal fumes may cause pulmonary edema (fluid in the lungs) and methemaglobinemia. May also cause pulmonary fibrosis and lung cancer.

Aggravated Medical Conditions Allergies. Skin disorders. Respiratory disorders. Central nervous system. Pre-existing eye disorders. Blood disorders. Kidney disorders. Liver disorders. Nasal cavities. Lungs.

Interactions with Other Chemicals Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Each alloy may contain one or more of the following ingredients. Consult the Technical Data Sheet for the composition of specific alloys.

Chemical Name	CAS-No	Weight %
Iron	7439-89-6	66.0-88.0
Chromium	7440-47-3	0.01-30.0
Nickel	7440-02-0	0.01-27.0
Manganese	7439-96-5	0.01-6.0
Molybdenum	7439-98-7	0.01-6.0
Titanium	7440-32-6	0.01-6.0
Copper	7440-50-8	0.01-6.0
Sulfur dioxide	7446-09-5	0.01`-2.0
Phosphorus	7723-14-0	0.01-2.0
Cobalt	7440-48-4	0.01-2.0
Carbon	7440-44-0	0.01-2.0
Silicon	7440-21-3	0.01-2.0
Tungsten	7440-33-7	0.00-1.8
Niobium	7440-03-1	0.00-1.00
Aluminum	7429-90-5	0.01-0.5
Tantalum	7440-25-7	0.15-0.45
Selenium	7782-49-2	0.03-0.35

Stainless Steel Alloys may be comprised of all or variations of the alloys shown here.

4. FIRST AID MEASURES

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Consult a physician.

Skin Contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician.

Ingestion Do NOT induce vomiting. Call a physician or Poison Control Center immediately. Drink plenty of water. Never give anything by mouth to an unconscious person.

Notes to Physician May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties This product does not present fire or explosion hazards as shipped. Small chips, fines, and dust from processing may be readily ignitable.

Flash Point Not applicable.

Suitable Extinguishing Media Class D extinguishing agents on fines, dust or molten metal. Use coarse water spray on chips and fines.

Unsuitable Extinguishing Media DO NOT use halogenated extinguishing agents on small chips or fines. DO NOT use water for fires invoving molten metal. These fire extinguishing agents will react with burning material.

Explosion Data
Sensitivity to Mechanical Impact None
Sensitivity to Static Discharge None

Specific Hazards Arising from the Chemical Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	**Health Hazard** 2	**Flammability** 0	**Instability** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 2*	**Flammability** 0	**Physical Hazard** 0	**Personal Protection** X

**Indicates a chronic health hazard.*

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Keep people away from and upwind of spill/leak.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Avoid dust formation. Collect scrap for recycling.

If product is molten, contain the flow using dry sand or salt flux as a dam. All tools and containers which come in contact with molten metal must be preheated or specially coated and rust free. Allow the spill to cool before remelting as scrap.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation. Keep material dry. Avoid contact with sharp edges or heated material. Hot and cold aluminum are not visually different. Hot aluminum does not always glow red.

Storage Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum 7429-90-5	TWA: 1 mg/m^{3}respirable fraction	TWA: 15 mg/m^{3}total dust TWA: 5 mg/m^{3}respirable fraction (vacated) TWA: 15 mg/m^{3}total dust (vacated) TWA: 5 mg/m^{3}respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
Manganese 7439-96-5	TWA: 0.2 mg/m^3	(vacated) TWA: 1 mg/m^{3}fume (vacated) STEL: 3 mg/m^{3}fume (vacated) Ceiling: 5 mg/m^3 Ceiling: 5 mg/m^{3}fume	IDLH: 500 mg/m^3 TWA: 1 mg/m^3 fume STEL: 3 mg/m^3
Molybdenum 7439-98-7	TWA: 10 mg/m^{3}inhalable fraction TWA: 3 mg/m^{3}respirable fraction	(vacated) TWA: 10 mg/m^3	IDLH: 5000 mg/m^3
Nickel 7440-02-0	TWA: 1.5 mg/m^3	TWA: 1 mg/m^3 (vacated) TWA: 1 mg/m^3	IDLH: 10 mg/m^3 TWA: 0.015 mg/m^3
Silicon 7440-21-3		TWA: 15 mg/m^{3}total dust TWA: 5 mg/m^{3}respirable fraction (vacated) TWA: 10 mg/m^{3}total dust (vacated) TWA: 5 mg/m^{3}respirable fraction	TWA: 10 mg/m^3 total dust TWA: 5 mg/m^3 respirable dust
Tantalum 7440-25-7		TWA: 5 mg/m^3 (vacated) TWA: 5 mg/m^3	IDLH: 2500 mg/m^{3}dust TWA: 5 mg/m^3 dust STEL: 10 mg/m^{3}dust
Tungsten 7440-33-7	STEL: 10 mg/m^3 TWA: 5 mg/m^3	(vacated) TWA: 5 mg/m^3 (vacated) STEL: 10 mg/m^3	TWA: 5 mg/m^3 STEL: 10 mg/m^3
Cobalt 7440-48-4	TWA: 0.02 mg/m^3	TWA: 0.1 mg/m^{3}dust and fume (vacated) TWA: 0.05 mg/m^{3}dust and fume	IDLH: 20 mg/m^{3}dust and fume TWA: 0.05 mg/m^3 dust and fume
Copper 7440-50-8	TWA: 0.2 mg/m^{3}fume	TWA: 0.1 mg/m^{3}fume TWA: 1 mg/m^{3}dust and mist (vacated) TWA: 0.1 mg/m^3 Cu dust, fume, mist	IDLH: 100 mg/m^{3}dust, fume and mist TWA: 1 mg/m^3 dust and mist TWA: 0.1 mg/m^3 fume
Sulfur dioxide 7446-09-5	STEL: 0.25 ppm	TWA: 5 ppm TWA: 13 mg/m^3 (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m^3 (vacated) STEL: 5 ppm (vacated) STEL: 15 mg/m^3	IDLH: 100 ppm TWA: 2 ppm TWA: 5 mg/m^3 STEL: 5 ppm STEL: 13 mg/m^3
Phosphorus 7723-14-0		TWA: 0.1 mg/m^3 (vacated) TWA: 0.1 mg/m^3	IDLH: 5 mg/m^3 TWA: 0.1 mg/m^3
Selenium 7782-49-2	TWA: 0.2 mg/m^3	TWA: 0.2 mg/m^3 Se (vacated) TWA: 0.2 mg/m^3	IDLH: 1 mg/m^3 TWA: 0.2 mg/m^3

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992). Hexavalent chrome may be formed during welding.

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Impervious clothing. Impervious gloves.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Do not breathe vapors/dust. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Metallic, Solid.	**Odor**	Odorless.
Odor Threshold	No information available	**Physical State**	Solid
pH	No information available.		
Flash Point	Not applicable.	**Autoignition Temperature**	No information available.
Decomposition Temperature	No information available.	**Boiling Point/Boiling Range**	No information available
Melting Point/Range	1300°C / 2400°F		
Flammability Limits in Air	No information available.		
Specific Gravity	7.9	**Solubility**	No information available.
Evaporation Rate	No information available	**Vapor Pressure**	No data available.
Vapor Density	No data available.		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Acids. Alkalies. Metal oxides. Iron powder and water: may cause an explosive reaction forming hydrogen gas when heated above 1470F (800C). Moisture.
Conditions to Avoid	Dust formation. Heat, flames and sparks.
Hazardous Decomposition Products	Iron oxides. Metal fume. Chromium oxides.
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Inhalation May cause irritation of respiratory tract. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count.

Eye Contact Dust contact with the eyes can lead to mechanical irritation.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Iron	= 984 mg/kg (Rat)		
Nickel	> 9000 mg/kg (Rat)		
Cobalt	= 6170 mg/kg (Rat)		> 10 mg/L (Rat) 1 h
Sulfur dioxide		-	Per CGA P-20: 2500 ppm/1hr (Rat)
Phosphorus	= 3.03 mg/kg (Rat)	= 100 mg/kg (Rat)	= 4.3 mg/L (Rat) 1 h
Selenium	= 6700 mg/kg (Rat)		

Chronic Toxicity

Chronic Toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. Prolonged exposure may cause chronic effects. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Elevated temperature processing such as welding and plasma arc cutting may release hazardous fumes. Overexposure to metal fumes may cause pulmonary edema (fluid in the lungs) and methemaglobinemia. May also cause pulmonary fibrosis and lung cancer.

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical Name	ACGIH	IARC	NTP	OSHA
Chromium		Group 3		
Nickel		Group 2B Group 1	Reasonably Anticipated	X
Sulfur dioxide		Group 3	-	-
Cobalt	A3	Group 2A Group 2B		X
Selenium		Group 3		

ACGIH: (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
NTP: (National Toxicity Program)
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)
X - Present

Target Organ Effects Blood. Central nervous system (CNS). Eyes. Kidney. Liver. Lungs. Nasal cavities. Respiratory system. Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Iron	-	LC50 96 h: = 0.56 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 13.6 mg/L static (Morone saxatilis)	-	-
Nickel	EC50 96 h: 0.174 - 0.311 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: = 0.18 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: = 1.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 10.4 mg/L static (Cyprinus carpio) LC50 96 h: > 100 mg/L (Brachydanio rerio)	-	EC50 48 h: = 1 mg/L Static (Daphnia magna) EC50 48 h: > 100 mg/L (Daphnia magna)
Copper	EC50 96 h: 0.031 - 0.054 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: 0.0426 - 0.0535 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: 0.0068 - 0.0156 mg/L (Pimephales promelas) LC50 96 h: < 0.3 mg/L static (Pimephales promelas) LC50 96 h: = 0.052 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.112 mg/L flow-through (Poecilia reticulata) LC50 96 h: = 0.2 mg/L flow-through (Pimephales promelas) LC50 96 h: = 0.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.8 mg/L static (Cyprinus carpio) LC50 96 h: = 1.25 mg/L static (Lepomis macrochirus)	-	EC50 48 h: = 0.03 mg/L Static (Daphnia magna)
Phosphorus	-	LC50 96 h: 0.001-0.004 mg/L static (Lepomis macrochirus) LC50 96 h: 0.0017-0.0035 mg/L flow-through (Lepomis macrochirus) LC50 96 h: 0.011-0.028 mg/L static (Pimephales promelas) LC50 96 h: 0.015-0.032 mg/L static (Oncorhynchus mykiss) LC50 96 h: > 100 mg/L static (Brachydanio rerio)	-	EC50 48 h: 0.025 - 0.037 mg/L Static (Daphnia magna) EC50 48 h: = 0.03 mg/L (Daphnia magna)
Cobalt	-	LC50 96 h: > 100 mg/L static (Brachydanio rerio)	-	-

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations.

Contaminated Packaging Do not re-use empty containers.

US EPA Waste Number D007
D010

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Chromium - 7440-47-3		Included in waste streams: F032, F034, F035, F037, F038, F039	5.0 mg/L regulatory level	
Nickel - 7440-02-0	(hazardous constituent - no waste number)	Included in waste streams: F006, F039		
Selenium - 7782-49-2		Included in waste stream: F039	1.0 mg/L regulatory level	

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Chromium	Toxic Corrosive Ignitable
Nickel	Toxic powder Ignitable powder
Manganese	Ignitable powder
Molybdenum	Ignitable powder
Titanium	Ignitable powder
Copper	Toxic
Phosphorus	Toxic Ignitable Reactive
Cobalt	Toxic powder Ignitable powder
Aluminum	Ignitable powder

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL Complies
EINECS Complies
ENCS Complies
IECSC Complies

15. REGULATORY INFORMATION

KECL Complies
PICCS Complies
AICS Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Chromium	7440-47-3	30	1.0
Cobalt	7440-48-4	2	0.1
Copper	7440-50-8	6	1.0
Manganese	7439-96-5	6	1.0
Nickel	7440-02-0	27	0.1
Phosphorus	7723-14-0	2	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Nickel		X	X	
Copper		X	X	
Phosphorus	1 lb			X
Selenium		X	X	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Nickel	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Chromium			RQ 5000 lb final RQ RQ 2270 kg final RQ
Copper	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Sulfur dioxide		500 lb	
Phosphorus	1 lb	1 lb	RQ 1 lb final RQ RQ 0.454 kg final RQ
Selenium	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Nickel	7440-02-0	Carcinogen
Cobalt	7440-48-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Aluminum	X	X	X		X
Manganese	X	X	X	X	X
Molybdenum	X	X	X		X
Nickel	X	X	X	X	X
Silicon	X	X	X		X
Tantalum	X	X	X		X
Titanium	X				
Tungsten	X	X	X		X
Carbon			X		X
Chromium		X			X
Cobalt	X	X	X	X	X
Copper	X	X	X	X	X
Sulfur dioxide	X	X	X		X
Phosphorus	X	X	X	X	X
Selenium	X	X	X	X	X

International Regulations

Chemical Name	Carcinogen Status	Exposure Limits
Aluminum		Mexico: TWA= 10 mg/m^3
Manganese		Mexico: TWA 0.2 mg/m^3 Mexico: TWA 1 mg/m^3 Mexico: STEL 3 mg/m^3
Nickel		Mexico: TWA 1 mg/m^3
Silicon		Mexico: TWA 10 mg/m^3 Mexico: STEL 20 mg/m^3
Tantalum		Mexico: TWA 5 mg/m^3 Mexico: STEL 10 mg/m^3
Tungsten		Mexico: TWA 5 mg/m^3 Mexico: STEL 10 mg/m^3
Carbon		Mexico: TWA 2 mg/m^3
Chromium		Mexico: TWA 0.5 mg/m^3
Cobalt	A3	Mexico: TWA= 0.1 mg/m^3
Copper		Mexico: TWA= 1 mg/m^3 Mexico: TWA= 0.2 mg/m^3 Mexico: STEL= 2 mg/m^3
Sulfur dioxide		Mexico: TWA 2 ppm Mexico: TWA 5 mg/m^3 Mexico: STEL 5 ppm Mexico: STEL 10 mg/m^3
Phosphorus		Mexico: TWA 0.1 mg/m^3 Mexico: STEL 0.3 mg/m^3
Selenium		Mexico: TWA 0.2 mg/m^3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
Non-controlled

Chemical Name	NPRI
Aluminum	X
Nickel	X
Chromium	X
Cobalt	X
Sulfur dioxide	X

Phosphorus	X
Selenium	X

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Prepared By
Product Stewardship
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Latham, NY 12110
1-800-572-6501

Issuing Date 23-Nov-2011
Revision Date

Revision Note Initial Release.

General Disclaimer
The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet