MATHESON
The Gas Professionals

Safety Data Sheet

Material Name: NANOCHEM® INX™ Medium (unconditioned) **SDS ID: 00244705**

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
NANOCHEM® INX™ Medium (unconditioned)
Trade Names
NANOCHEM® INX™ Gas Purification System
Product Description
For Use with Gases: Inert (nitrogen, argon, helium, neon, xenon, krypton); Hydrocarbons (methane); Halogenated Gases (fluoroethane); hydrogen; and gas mixtures of the above constituent gases. As a service to our customers, Matheson has identified this Safety Data Sheet with the intended gas for which the accompanying purifier will be used. The data herein is reflective of the purification material, as shipped under an inert gas pressure of 5-15 psig. Once the purifier is installed and exposed to the intended process gas, the SDS for the process gas must also be consulted in conjunction with this SDS to determine the appropriate hazards. The purification system is sold as a sealed unit and no worker exposure to the media is expected. In case of an accidental spill of the contents, the signs and symptoms below may be seen.
Product Use
Industrial and Specialty Gas Applications.
Restrictions on Use
None known.
Details of the supplier of the safety data sheet
MATHESON TRI-GAS, INC.
909 Lake Carolyn Parkway
Suite 1300
Irving, TX 75039
General Information: 1-800-416-2505
Emergency #: 1-800-424-9300 (CHEMTREC)
Outside the US: 703-527-3887 (Call collect)

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
Acute Toxicity - Inhalation - Dust/Mist - Category 4
Respiratory Sensitization - Category 1A
Skin Sensitization - Category 1A
Carcinogenicity - Category 1A
Specific Target Organ Toxicity - Single Exposure - Category 1 (kidneys , respiratory system)
Specific Target Organ Toxicity - Single Exposure - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 1 (respiratory system)
Specific Target Organ Toxicity - Repeated Exposure - Category 2
Hazardous to the Aquatic Environment - Acute - Category 1
Hazardous to the Aquatic Environment - Chronic - Category 1
GHS Label Elements
Symbol(s)

Signal Word
Danger
Hazard Statement(s)
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause cancer.
Causes damage to organs.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.
May cause damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life with long lasting effects.
Precautionary Statement(s)
Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear respiratory protection.
Wash thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves.
Response
Collect spillage.
If exposed: Call a POISON CENTER or doctor/physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Call a POISON CENTER or doctor if you feel unwell.
Specific treatment (see label).
Storage
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Disposal
Dispose in accordance with all applicable regulations.
Other Hazards
There are no expected signs or symptoms of overexposure in the workplace. The purification system is sold as a sealed unit and no worker exposure to the media is expected. In the case of an accidental spill, exposure to air will cause the pellets to become hot and may ignite flammable materials in the vicinity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent

1313-99-1	Nickel oxide	40-50
7440-02-0	Nickel	50-60

Section 4 - FIRST AID MEASURES

Inhalation
It is unlikely that emergency treatment will be required. However, in case of contact with media remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Maintain airway, blood pressure, and respiration. Keep warm and at rest. Get immediate medical attention.

Skin
It is unlikely that emergency treatment will be required. However, in case of contact with media promptly wash with soap and running water. Remove contaminated clothing. Wash clothing before reuse. Cover affected area securely with sterile, loose-fitting dressing. Get immediate medical attention.

Eyes
It is unlikely that emergency treatment will be required. However, in case of contact with media, immediately flush with plenty of low pressure water for at least 20 minutes. Remove any contact lenses to ensure thorough flushing. Get immediate medical attention.

Ingestion
The system is sold as a sealed unit and exposure to the compound via ingestion is not expected. If ingestion does occur, call a physician. Avoid gastric lavage or emesis. Never make an unconscious person vomit or drink fluids. If vomiting occurs, keep head lower than hips to help prevent aspiration. Maintain airway and respiration. Get immediate medical attention.

Most Important Symptoms/Effects

Acute
no information on significant adverse effects.

Delayed
no information on significant adverse effects.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Use regular dry chemical and dry sand. Use extinguishers rated for Class D fires, such as Ansul Met-L-Kyl (TM).

Unsuitable Extinguishing Media
None known.

Special Hazards Arising from the Chemical
Negligible fire hazard as long as the container is not punctured or a wrong gas such as pure oxygen is not accidentally piped to the canister.

Fire Fighting Measures
Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up

Avoid heat, flames, sparks and other sources of ignition. In the unlikely event that the purifier media is released from the canister, please follow the following procedures: Allow media to cool before taking any action. Contain spill. Scoop spilled material into clean, dedicated equipment. To avoid emitting particulates, do not vacuum spills; a vacuum cleaner may be used only if it is equipped with a HEPA filter. Avoid generating dust. If applicable, contact the National Response Center at (800) 424-8802, or (202) 426-2675. It is recommended each user establish an emergency response plan in accordance with 29 CFR 1910.120. Such plans should include procedures applicable to proper storage, control and clean up of spills, including disposal, as appropriate (see Section 13, Disposal Consideration).

Environmental Precautions

Avoid release to the environment.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

No special handling precautions during normal use. Do not puncture container. Do not open the system to the atmosphere. Wash hands thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Store and handle in accordance with all current regulations and standards. Store at ambient temperatures with contents under dry inert gas pressure at 5 - 15 psig. Do not store or operate at temperatures above 70 °C (158 °F). Do not puncture container. Do not open the system to the atmosphere. Keep away from heat, sparks and flame. Take precautionary measures against static discharges. Keep separated from incompatible substances.

Incompatible Materials

None during normal use. The ingredients of this product are incompatible with: Air, Oxygen, strong acids, mineral acids, oxidizing agents, water, carbon dioxide, carbon monoxide, hydrides

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Nickel oxide	**1313-99-1**
NIOSH:	0.015 mg/m3 TWA (except Nickel carbonyl) as Ni (related to Nickel compounds)
	10 mg/m3 IDLH (except Nickel carbonyl) as Ni (related to Nickel compounds)
Nickel	**7440-02-0**
ACGIH:	1.5 mg/m3 TWA inhalable particulate matter
NIOSH:	0.015 mg/m3 TWA
	10 mg/m3 IDLH
OSHA (US):	1 mg/m3 TWA
Mexico:	1.5 mg/m3 TWA [VLE-PPT] inhalable fraction

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

Nickel (7440-02-0)

5 µg/l Medium: urine Time: post-shift at end of workweek Parameter: Nickel (background)

Engineering Controls
Not required during normal system use. In the event of system rupture, media removal from the system, or exposure to the media: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.
Individual Protection Measures, such as Personal Protective Equipment
Eye/face protection
Not required during normal system use. In the event of system rupture, media removal from the system, or exposure to the media: Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin Protection
Not required during normal system use. In the event of system rupture, media removal from the system, or exposure to the media: Wear appropriate chemical resistant clothing.
Respiratory Protection
Not required during normal system use. In the event of system rupture, media removal from the system, or exposure to the media: Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134). The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA. 0.25 mg/m3. Any air-purifying respirator with a high-efficiency particulate filter. Any supplied-air respirator. 0.5 mg/m3. Any supplied-air respirator operated in a continuous-flow mode. Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter. Any powered, air-purifying respirator with a high-efficiency particulate filter. Any self-contained breathing apparatus with a full facepiece. Any supplied-air respirator with a full facepiece. Escape -. Any air-purifying respirator with a full facepiece and a high-efficiency particulate filter. Any appropriate escape-type, self-contained breathing apparatus. For Unknown Concentrations or Immediately Dangerous to Life or Health -. Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
Glove Recommendations
Not required during normal system use. In the event of system rupture, media removal from the system, or exposure to the media: Wear appropriate chemical resistant gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Combination of small extrudates and pellets in a stainless steel canister under 5 15 psig inert gas pressure	**Physical State**	solid
Odor	odorless	**Color**	black extrudates
Odor Threshold	Not available	**pH**	Not available
Melting Point	Not available	**Boiling Point**	Not available
Boiling Point Range	Not available	**Freezing point**	Not available
Evaporation Rate	Not available	**Flammability (solid, gas)**	Not flammable
Autoignition Temperature	Not available	**Flash Point**	Not available

Lower Explosive Limit	Not available	**Decomposition temperature**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	Not available
Vapor Density (air=1)	Not available	**Specific Gravity (water=1)**	Not available
Water Solubility	Reacts with water, Insoluble	**Partition coefficient: n-octanol/water**	Not available
Viscosity	Not available	**Kinematic viscosity**	Not available
Solubility (Other)	Not available	**Bulk Density**	0.74 g/cm3
Density	Not available	**Physical Form**	extrudates , pellets
Volatility	Negligible	**Molecular Weight**	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity
None during normal use. Contents will react with oxygen, moisture, and carbon dioxide in air and generate temperatures that may be high enough to char and possibly ignite flammable materials.
Chemical Stability
Stable at normal temperatures and pressure.
Possibility of Hazardous Reactions
Will not polymerize. Do not use purifier with unsaturated hydrocarbon gases, such as acetylene, ethylene and propylene. Such unsaturated hydrocarbons may polymerize inside the media and partially or fully block the purifier. Acetylene, in particular, is unstable and may violently decompose inside the purifier.
Conditions to Avoid
Avoid contact with incompatible materials. Avoid contact with air. Keep dry. Keep away from heat. Do not store or operate at temperatures above 70 °C (158 °F). Do not use or expose the purifier to any gases that it is not rated for, such as, acetylene (C2H2), carbon monoxide (CO), NF3, HCl, AsH3, PH3, and B2H6.
Incompatible Materials
None during normal use. The ingredients of this product are incompatible with: Air, Oxygen, strong acids, mineral acids, oxidizing agents, water, carbon dioxide, carbon monoxide, hydrides
Hazardous decomposition products
Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Mineral acids will react with the nickel content to liberate hydrogen gas. The nickel media and the purifier hardware, themselves, will not cause a fire.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure
Inhalation
This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product: irritation (possibly severe), pulmonary fibrosis, cough, dyspnea, wheezing, asthma, bronchitis, difficulty breathing

Skin Contact
This product is considered to be nonhazardous, however, the following effects may occur as a result of damage to the product: irritation, allergic reactions
Eye Contact
This product is considered to be nonhazardous, however, the following effects may occur as a result of damage to the product: irritation
Ingestion
This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product: stomach pain, nausea, vomiting, diarrhea
Acute and Chronic Toxicity
There are no expected signs or symptoms of overexposure in the workplace. The purification system is sold as a sealed unit and no worker exposure to the media is expected. In case of an accidental spill, the signs and symptoms below may be seen.
Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:
Nickel oxide (1313-99-1)
Oral LD50 Rat >5000 mg/kg
Inhalation LC50 Rat >5.08 mg/L 4 h (no deaths occurred)
Nickel (7440-02-0)
Oral LD50 Rat >9000 mg/kg (powder suspended in mineral oil)
Inhalation LC50 Rat >10.2 mg/L 1 h (no deaths occurred)
Product Toxicity Data
Acute Toxicity Estimate

Inhalation - Dust and Mist	2.9966 mg/L
Oral	> 2000 mg/kg

Immediate Effects
no information on significant adverse effects.
Delayed Effects
no information on significant adverse effects.
Irritation/Corrosivity Data
No data available.
Respiratory Sensitization
No data available.
Dermal Sensitization
No data available.
Component Carcinogenicity

Nickel oxide	**1313-99-1**
IARC:	Monograph 49 [1990] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen (related to Nickel compounds)
DFG:	Category 1 (causes cancer in man)

OSHA:	Present (related to Nickel compounds)
NIOSH:	potential occupational carcinogen (related to Nickel compounds)
Nickel	**7440-02-0**
ACGIH:	A5 - Not Suspected as a Human Carcinogen
IARC:	Monograph 100C [2012] ; Monograph 49 [1990] (evaluated as a group) (related to Nickel compounds) (Group 1 (carcinogenic to humans))
IARC:	Monograph 49 [1990] ; Supplement 7 [1987] (Group 2B (possibly carcinogenic to humans))
NTP:	Known Human Carcinogen (related to Nickel compounds)
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 1 (causes cancer in man)
OSHA:	Present
NIOSH:	potential occupational carcinogen

Germ Cell Mutagenicity
No data available.
Tumorigenic Data
No data available
Reproductive Toxicity
No data available for the mixture.
Specific Target Organ Toxicity - Single Exposure
No target organs identified.
Specific Target Organ Toxicity - Repeated Exposure
No target organs identified.
Aspiration hazard
No data available.
Medical Conditions Aggravated by Exposure
asthma, allergies, respiratory disorders, eye disorders, skin disorders

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Nickel oxide	**1313-99-1**
Fish:	LC50 96 h Brachydanio rerio >100 mg/L [static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata >127.3 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna >100 mg/L IUCLID

Nickel	**7440-02-0**
Fish:	LC50 96 h Brachydanio rerio >100 mg/L; LC50 96 h Cyprinus carpio 1.3 mg/L [semi-static]; LC50 96 h Cyprinus carpio 10.4 mg/L [static]
Algae:	EC50 72 h Pseudokirchneriella subcapitata 0.18 mg/L IUCLID ; EC50 96 h Pseudokirchneriella subcapitata 0.174 - 0.311 mg/L [static] EPA
Invertebrate:	EC50 48 h Daphnia magna >100 mg/L IUCLID ; EC50 48 h Daphnia magna 1 mg/L [Static] EPA

Persistence and Degradability
No data available.
Bioaccumulative Potential
No data available.
Mobility
No data available.
Other Toxicity
No data available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations. If the purification system is ever exposed to toxic gases or gases containing toxic elements, the media may contain these toxic materials, or reaction products thereof, and exhibit the characteristic of toxicity as defined in the hazardous waste regulations 40 CFR 261 Subpart C or D. System Recharge: The customer may consult Matheson for the disposal and recharge of the system. All purifiers must be thoroughly purged with an inert gas prior to disposal or return for disposal/refill.
Component Waste Numbers
The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
Shipping Name: SELF-HEATING SOLID, INORGANIC, N.O.S. , (Contains: Nickel)
Hazard Class: 4.2
UN/NA #: UN3190
Packing Group: II
Required Label(s): 4.2
Marine pollutant

IMDG Information:
Shipping Name: SELF-HEATING SOLID, INORGANIC, N.O.S. , (Contains: Nickel)
Hazard Class: 4.2
UN#: UN3190
Packing Group: II
Required Label(s): 4.2
Marine pollutant
Further information: Marine pollutant
International Bulk Chemical Code
This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Nickel oxide	**1313-99-1**
SARA 313:	0.1 % de minimis concentration (includes any unique chemical substance that contains Nickel as part of that chemical's infrastructure) (related to Nickel compounds)
Nickel	**7440-02-0**
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm); 45.4 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm)

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Carcinogenicity; Acute toxicity; Respiratory/Skin Sensitization; Specific Target Organ Toxicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Nickel oxide	**1313-99-1**	Yes	Yes	No	Yes	Yes
Nickel	**7440-02-0**	Yes	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

WARNING

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

Nickel oxide	**1313-99-1**
Carc:	carcinogen , 10/1/1989
Nickel	**7440-02-0**
Carc:	carcinogen , 10/1/1989 (metallic)

Component Analysis - Inventory

Nickel oxide (1313-99-1)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW, CN	VN (Draft)
Yes	Yes	Yes	Yes	Yes	Yes	Yes

Nickel (7440-02-0)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	No	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW, CN	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 2 Fire: 2 Instability: 1

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

Updated: 11/30/2015

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; Ne- Non-specific; NFPA

- National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

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