



### WHMIS ( Classification )

Not controlled (Canada)

### WHMIS ( Pictograms )



## SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Trade Name** **Platinum**  
**Product Code** None  
**Manufacturer** Falconbridge Nikkelverk A/S Serviceboks 604, N-4606 Kristians and South, Norway  
**Supplier** Falconbridge Limited, Suite 800, 207 Queen's Quay West, Toronto, Ontario Canada M5J 1A7  
 Falconbridge International Limited, Suite 201, Stevmar House Rockley, Christ Church, Barbados  
 Société minière Raglan du Québec limitée, 120, avenue de l'Aéroport, Rouyn-Noranda, Quebec, Canada J9X 5B7  
**Information Contact** Falconbridge Limited, Environmental Services ( See also Section 17 for other contacts )  
**Phone Number ( Business hours )** ( 416 ) 982-3950  
**Phone Number ( Emergency )** **Falconbridge Nikkelverk A/S ( +47 38 10 10 10 )**  
**Synonym** Platine ( French )  
**DSL ( Domestic Substance List )** Listed  
**Name / Chemical Formula** Platinum / Pt  
**Chemical Family** Metal  
**Utilization** Alloying with other metals ; Electrical contacts, catalysts ; Jewelry.

## SECTION 2. COMPOSITION AND INFORMATIONS ON INGREDIENTS

Name	CAS #	Percentage ( % )	Exposure Limits		
			ACGIH ( U.S.A. ) 2005 TLV-TWA ( mg/m <sup>3</sup> )	OSHA ( U.S.A. ) PEL - TWA ( mg/m <sup>3</sup> )	ONTARIO ( Canada ) TWA EV ( mg/m <sup>3</sup> )
Platinum	7400-06-4	> 99.95	1 (metal)	Not established	1 (metal)
Other metals	Not applicable	< 0.05 total	Not applicable	Not applicable	Not applicable

ACGIH : American Conference of Governmental Industrial Hygienists. OSHA : Occupational Safety and Health Administration.

**Note :** **Platinum :** NIOSH REL-TWA : 1 mg/m<sup>3</sup> ( Metal ) ; 0.002 mg/m<sup>3</sup> (Soluble salts). INTRAPERITONEAL acute ( LD50 ) : 17 mg/kg ( Mouse ).LC50 : Not available.

*Consult local authorities for acceptable exposure limits.*

## SECTION 3. RISK IDENTIFICATION FOR HUMAN HEALTH

**Routes of Entry** Inhalation. Ingestion  
**Carcinogenicity** **Platinum :** NOT CLASSIFIABLE ( Human, Group 3, IARC ) ; NOT LISTED ( NTP, OSHA ).  
**Mutagenicity** Not applicable.  
**Teratogenicity** Not applicable.  
**Acute Effects** Inhalation ( Dust or powder ) : Possibility of irritation of the mucous membranes, upper respiratory tract. Contact ( Eye ) : Possibility of irritation ( Mechanical ). Ingestion : unlikely and is not likely to cause acute toxicity on single exposure.

## SECTION 4. FIRST AID MEASURES

**Eye Contact** Remove contact lenses if present. Immediately rinse eyes with clean water or saline isotonic solution, while holding eyelids open for at least 15 minutes. Consult a physician.  
**Skin Contact** Remove contaminated clothing . Wash skin with water and soap.  
**Inhalation** Remove the person from exposure. Bring to fresh air. Consult a physician.  
**Ingestion** Rare in industry. Induce vomiting. **UNCONSCIOUS** person : **DO NOT** induce vomiting or give any liquid. **Immediately** obtain medical attention.

## SECTION 5. FIRE AND EXPLOSION DATA

**Flash Point** Not applicable  
**Flammable Limits** Not applicable  
**Auto-Ignition Temperature** Not applicable  
**Products of Combustion** Not applicable  
**Fire Hazard** Dust : Flammable when exposed to heat or flames.  
**Explosion Hazard** Not explosive ( Mechanical impact ).  
**Fire Fighting ( Instructions )** Massive form : NON-FLAMMABLE. Finely divided particles : Possibility of self heating.  
 Use water spray, carbon dioxide, or dry chemical powder.  
 Firefighters must wear self-contained breathing apparatus ( SCBA ) and full protective clothing.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Spill** Sweep up or vacuum. Wet spilled solid to avoid dusting conditions. Spilled material can usually be returned to process.

**Personal Protection** No special protective equipment required. Use a NIOSH approved respirator or equivalent when handling powders and dust.

**SECTION 7. HANDLING AND STORAGE**

**Handling** **DO NOT** ingest or inhale dust, powder or fumes. **AVOID** contact ( Eyes, skin ) with dust and powder. Wear adequate protective clothing. Ensure adequate ventilation or wear approved respirators if adequate ventilation cannot be provided. Ingestion or inhalation : Seek medical advice **immediately** and provide medical personnel with a copy of this MSDS.

**Storage** No special precautions required. Platinum sponge is supplied in sealed cans packed in carton boxes. There are 7775.9 grams platinum per sealed can.

**SECTION 8. ENGINEERING CONTROLS AND PERSONAL PROTECTION**

**Engineering Controls** Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If operations generate dust or fumes, use ventilation to keep exposure to airborne contaminants below the exposure limits.

**Personal Protection** Safety glasses. Coveralls. Work gloves and boots. Dust respirator. Be sure to use a NIOSH/MSHA approved respirator or equivalent when occupational exposure limits are exceeded.



**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State and Appearance** Sponge ( 100 % less than 1.4 mm )  
**Molecular Weight** Not applicable  
**pH (1% soln/water)** Not applicable  
**Boiling Point** 3 800°C ( 6 872°F ) ( Approx. )  
**Melting Point** 1 772°C ( 3 222°F )  
**Critical Temperature** Not available  
**Specific Gravity** Not applicable  
**Vapour Pressure** Not applicable  
**Vapour Density** Not applicable  
**Solubility** No ( Water )

**Odour** Odorless  
**Taste** Not applicable  
**Colour** Lustrous Silver grey  
**Volatility** Yes ( 1 500°C )  
**% Moisture** Not available  
**Odour Threshold** Not available  
**Water/Oil Dist. Coeff.** Not available  
**Ionicity ( in Water )** Not available  
**Harness ( Mohs )** Not available  
**Dispersion** Not available

**SECTION 10. STABILITY AND REACTIVITY DATA**

**Stability** Yes  
**Conditions of Instability** None  
**Incompatibilities** **Platinum** : With : Acetone, arsenic, dioxygen difluoride, ethanol, hydrazine, hydrogen, air, hydrogen peroxide, lithium, ozonides, peroxymonosulfuric acid, phosphorus, tellurium, selenium.  
**Corrosivity** No

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Chronic Effects** **Platinum ( Metal )** : Generally harmless. Possibility of allergic dermatitis in susceptible individuals. Skin changes are most common between the fingers and on the inside of the wrist. Dust : Symptoms of respiratory distress, ranging from irritation to an asthmatic syndrome ( Coughing, wheezing, shortness of breath ), conjunctivitis. Platinosis ( Skin and respiratory changes ) : Mainly confined to persons with a history of industrial exposure to soluble platinum salts ( as Sodium chloroplatinate ).

**Toxicity** **Platinum** : Skin problems or respiratory disorders, asthma and allergy to platinum salts.  
*Eating, drinking and smoking must be prohibited in areas where this material is handled and processed. Wash hands and face before eating, drinking and smoking.*

**SECTION 12. ECOTOXICOLOGICAL INFORMATION**

**Ecotoxicity** Not applicable  
**Toxicity to Animals** Not available  
**Biodegradation Products** Not applicable  
**Biodegradation Products ( Toxicity )** Not applicable  
**Remarks on Environment** Take necessary precautions to minimize releases to natural environment.  
**BOD5 and COD** Not available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Waste Disposal** Recycle to process, if possible. Consult local or regional authorities.

**SECTION 14. TRANSPORT INFORMATION**

**TDG ( Pictograms )** Not regulated ( Canada )  
**PIN** Not applicable

Special Provisions ( Transport ) Not applicable

### SECTION 15. OTHER REGULATIONS

Other Regulations None  
 Classifications HCS ( U.S.A. ) Not controlled  
 Classifications DSCL ( EEC ) Not controlled

### NFPA ( National Fire Protection Association ) ( U.S.A. )

Fire Hazard 0 Reactivity 0 Health 2 Special Hazard

DOT ( U.S.A. ) ( Pictograms )

DSCL ( Europe ) ( Pictograms )

ADR ( Europe ) ( Pictograms )

### SECTION 16. OTHER INFORMATION

**References**

- ACGIH, TLVs and BEIs. 2005
- Canadian Centre for Occupational Health and Safety ( CCOHS ). Database MSDS/FTSS. Network Version WWW, 2005
- CSST - Répertoire toxicologique, 2005
- IARC, Monographs on the Evaluation of Carcinogenic Risks to Humans ( collection )
- NIOSH U.S. - Pocket Guide to Chemical Hazards - WWW database, 2005
- North American Emergency Response Guidebook Documents, Developed by the U.S. Department of Transportation, Transport Canada, and the Secretariat of Communications and Transportation of Mexico, 2004
- Patty's Industrial Hygiene and Toxicology, 3rd Revised Edition
- Règlement sur les produits contrôlés ( Canada )
- TOMES plus® Micromedex Inc. Environmental Health & Safety Series. WWW database, 2005
- Toxicologie industrielle & intoxication professionnelle, 3e édition, Lauwerys

**Glossary**

IARC : International Agency for Research on Cancer.  
 NIOSH : National Institute of Occupational Safety and Health.  
 NTP : U.S. National Toxicology Program.

**Note** No specific studies have been performed on this mixture. For your protection, we suggest that you test it before using in your process.

**Written by :** Groupe STEM Consultants / Falconbridge Limited **Date :** 2005-02-16 **Previous Date :** 2001-11-05

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