Conforms to ANSI Z400.1-2004 Standard (United States, Canada, Mexico).

Material Safety Data Sheet

DEXPAN (Non-Explosive Demolition Agent)

1 . Product and company identification

Common name : **DEXPAN (Non-Explosive Demolition Agent)**

Material uses : For controlled demolition, reinforced concrete cutting, rock breaking, quarrying, stone dimension, mining, excavating...

Supplier/Manufacturer : Archer Company USA, Inc.
2800 Airport Road, Suite N
Santa Teresa, NM 88008
Tel : (505) 874-9188
Toll free : 866-272-4378
Fax : (505) 874-9108
E-mail : sales@archerusa.com

In case of emergency : (505) 874-9188

MSDS authored by: : Kemika XXI Inc. + 1-450-435-7475 05/20/2006

2 . Hazards identification

Physical state : Solid. (Powder.)

Odor : Odorless.

Color : Gray.

Hazard status : This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada and the NOM-018-STPS-2000 in Mexico.

Emergency overview : DANGER !

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.

Do not get in eyes or on skin or clothing. Do not breathe dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes : Corrosive to eyes.

Skin : Corrosive to the skin.

Inhalation : Corrosive to the respiratory system.

Ingestion : May cause burns to mouth, throat and stomach.

Potential chronic health effects : Carcinogenic effects: Classified 3 (Not classifiable for humans.) by IARC [Silica, amorphous]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Iron (III) oxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Aluminum Oxide].
Mutagenic effects: Not available.
Teratogenic effects: Not available.

Medical conditions aggravated by over-exposure : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Calcium Oxide	1305-78-8	60 - 100
Silica, amorphous	60676-86-0	5 - 10
Iron (III) oxide	1309-37-1	1 - 5
Aluminum Oxide	1344-28-1	1 - 5

Canada

Name	CAS number	%
Calcium Oxide	1305-78-8	60 - 100
Silica, amorphous	60676-86-0	5 - 10
Iron (III) oxide	1309-37-1	1 - 5
Aluminum Oxide	1344-28-1	1 - 5

Mexico

			Classification					
Name	UN number	IDLH	H	F	R	Special	CAS number	%
Calcium Oxide	UN1910	25 mg/m^3	3	0	0		1305-78-8	60 - 100
Iron (III) oxide	Not regulated.	2500 mg/m^3	1	0	0		1309-37-1	1 - 5
Silica, amorphous	Not regulated.	-	0	0	0		60676-86-0	5 - 10
Aluminum Oxide	Not regulated.	-	0	0	0		1344-28-1	1 - 5

4 . First aid measures

Eye contact : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention immediately.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to physician : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

Flammability of the product : Non-flammable.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : Not available.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

7 . Handling and storage

Handling : Do not get in eyes or on skin or clothing. Keep container closed. Use only with adequate ventilation. Do not breathe dust. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States

Product name	Exposure limits
Calcium Oxide	**ACGIH TLV (United States, 1/2005).** TWA: 2 mg/m³ 8 hour(s). Form: All forms. **NIOSH REL (United States, 12/2001).** TWA: 2 mg/m³ 10 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 5 mg/m³ 8 hour(s). Form: All forms.
Silica, amorphous	**ACGIH TLV (United States, 1/2005).** TWA: 0,1 mg/m³ 8 hour(s). Form: Respirable fraction **OSHA PEL 1989 (United States, 3/1989).** TWA: 0,1 mg/m³ 8 hour(s). Form: Respirable dust
Iron (III) oxide	**ACGIH TLV (United States, 1/2005).** TWA: 10 mg/m³ 8 hour(s). Form: All forms. TWA: 5 mg/m³ 8 hour(s). Form: Dust and fumes **NIOSH REL (United States, 12/2001).** TWA: 5 mg/m³ 10 hour(s). Form: Dust and fumes
Aluminum Oxide	**ACGIH TLV (United States, 1/2005).** TWA: 10 mg/m³ 8 hour(s). Form: All forms. **NIOSH REL (United States, 12/2001).** TWA: 5 mg/m³ 10 hour(s). Form: All forms. **OSHA PEL (United States, 8/1997).** TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³ 8 hour(s). Form: Total dust

Canada

Product name	Exposure limits
Calcium Oxide	**ACGIH TLV (United States, 1/2005).** TWA: 2 mg/m³ 8 hour(s). Form: All forms.
Silica, amorphous	**ACGIH TLV (United States, 1/2005).** TWA: 0,1 mg/m³ 8 hour(s). Form: Respirable fraction
Iron (III) oxide	**ACGIH TLV (United States, 1/2005).** TWA: 10 mg/m³ 8 hour(s). Form: All forms. TWA: 5 mg/m³ 8 hour(s). Form: Dust and fumes
Aluminum Oxide	**ACGIH TLV (United States, 1/2005).** TWA: 10 mg/m³ 8 hour(s). Form: All forms.

Mexico

Product name	Exposure limits
Calcium Oxide	**NOM-010-STPS (Mexico, 9/2000).** CPT: 2 mg/m³ 8 hour(s). Form: All forms.
Silica, amorphous	**NOM-010-STPS (Mexico, 9/2000).** CPT: 0,1 mg/m³ 8 hour(s). Form: All forms. CPT: 10 mg/m³ 8 hour(s). Form: Inhalable fraction.
Iron (III) oxide	**NOM-010-STPS (Mexico, 9/2000).** CCT: 10 mg/m³ 15 minute(s). Form: All forms. CPT: 5 mg/m³ 8 hour(s). Form: All forms.
Aluminum Oxide	**NOM-010-STPS (Mexico, 9/2000).** CPT: 10 mg/m³ 8 hour(s). Form: Fume

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes : Safety glasses.

Skin : Synthetic apron.

Respiratory : Dust respirator.

Hands : Nitrile gloves.

HMIS Code/Personal protective equipment : F

Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.

Hygiene measures : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

Physical state : Solid. (Powder.)

Color : Gray.

Odor : Odorless.

Melting/freezing point : 1000°C (1832°F)

Relative density : 3.2 (Water = 1)

Solubility : Very slightly soluble in cold water.
Insoluble in hot water.

10 . Stability and reactivity

Stability and reactivity : The product is stable.

Incompatibility with various substances : Reactive with moisture, oxidizing materials and acids.

Hazardous polymerization : Will not occur.

Conditions of reactivity : Not available.

11 . Toxicological information

Acute Effects

Eyes : Corrosive to eyes.

Skin : Corrosive to the skin.

Inhalation : Corrosive to the respiratory system.

Ingestion : May cause burns to mouth, throat and stomach.

Potential chronic health effects : Carcinogenic effects: Classified 3 (Not classifiable for humans.) by IARC [Silica, amorphous]. Classified A4 (Not classifiable for humans or animals.) by ACGIH, 3 (Not classifiable for humans.) by IARC [Iron (III) oxide]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Aluminum Oxide].
Mutagenic effects: Not available.
Teratogenic effects: Not available.

Target organs : Contains material which causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.

12 . Ecological information

Environmental precautions : No known significant effects or critical hazards.

Products of degradation : Some metallic oxides.

Toxicity of the products of biodegradation : The product itself and its products of degradation are not toxic.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

14 . Transport information

NAERG : 154

Regulatory information	Proper shipping name	Class	UN number	PG	Label
UN / IMDG / IATA Classification	CORROSIVE SOLID, BASIC, INORGANIC N.O.S. (Calcium Oxide)	8	UN3262	III	
DOT Classification	CORROSIVE SOLID, BASIC, INORGANIC N.O.S. (Calcium Oxide)	8	UN3262	III	
TDG Classification	CORROSIVE SOLID, BASIC, INORGANIC N.O.S. (Calcium Oxide)	8	UN3262	III	

15 . Regulatory information

United States

HCS Classification : Corrosive material

U.S. Federal regulations : TSCA : All components listed.

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Calcium Oxide; Silica, amorphous; Iron (III) oxide; Aluminum Oxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Calcium Oxide: Immediate (acute) health hazard; Silica, amorphous: Immediate (acute) health hazard; Iron (III) oxide: Immediate (acute) health hazard; Aluminum Oxide: Immediate (acute) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements :	Aluminum Oxide	1344-28-1	1 - 5
Supplier notification :	Aluminum Oxide	1344-28-1	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : Pennsylvania RTK: Calcium Oxide: (generic environmental hazard); Iron (III) oxide: (environmental hazard, generic environmental hazard); Aluminum Oxide: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Calcium Oxide; Silica, amorphous; Iron (III) oxide; Aluminum Oxide
New Jersey: Calcium Oxide; Silica, amorphous; Iron (III) oxide; Aluminum Oxide

California prop. 65: No products were found.

Canada

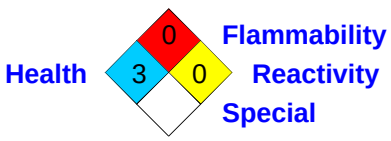
WHMIS (Canada) : Class E: Corrosive material

DSL : All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA and the Mexican NOM -018-STPS-2000. This MSDS contains all the information required by the CPR, OSHA, the American National Standard Institute (ANSI) Z400.1 and NOM -018-STPS-2000.

Mexico

Classification :



HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.

Hazardous Material Information System (U.S.A.) :

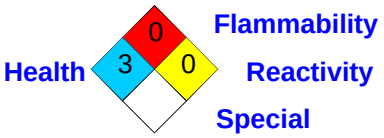
HMIS RATING

Health	3
Fire hazard	0
Physical Hazard	0
Personal protection	F

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal
See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

Date of issue : 05/20/2006

Version : 1

Notice to reader

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