

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEMICAL PRODUCT IDENTIFICATION:

PRODUCT ID . . . . . : ADS.COPPER  
PRODUCT CLASS . . . . . : PAINT, SOLVENT BASE  
TRADE NAME . . . . . : DURANAR® ADS COPPER  
FORMULA ID . . . . . : ADS.COPPER  
MSDS PREPARATION DATE . . . . . : 10/06/2014

MANUFACTURER IDENTIFICATION:

NAME . . . . . : NANOCEM TECHNOLOGIES  
ADDRESS . . . . . : 1203 Kent Street  
ELKHART, IN 46514  
TELEPHONE . . . . . : 574-970-2436  
EMERGENCY CONTACT . . . . . : CHEMTREC  
EMERGENCY TELEPHONE . . . . . : (800) 424-9300

SECTION 2 - COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

1. CAS# 67-64-1

ACETONE

PCT BY WT: 15-40 VAPOR PRESSURE: 185 MMHG @ 68F

EXPOSURE LIMIT:

ACGIH TLV/TWA: 500 ppm TWA

ACGIH TLV/STEL: 750 ppm TWA

OSHA PEL/TWA: 1000 ppm TWA

LC50:

LD50: Oral (Rat) - 5.8 g/kg

CA PROPOSITION 65: Yes

2. CAS# 108-88-3

TOLUENE

PCT BY WT: 10-30 VAPOR PRESSURE: 26 MMHG @ 68F

EXPOSURE LIMIT:

ACGIH TLV/TWA: 50 ppm TWA

ACGIH TLV/STEL:

OSHA PEL/TWA: 50 ppm TWA

LC50: No Data

LD50: No Data

CA PROPOSITION 65: Yes

3. CAS# 108-94-1

CYCLOHEXANONE

PCT BY WT: 7-13 VAPOR PRESSURE: 4.3 MMHG @ 68F

EXPOSURE LIMIT:

ACGIH TLV/TWA: 20 ppm TWA

ACGIH TLV/STEL: 50 ppm

OSHA PEL/TWA: 50 ppm TWA

LC50: Inhalation (Rat) - 8000 ppm

LD50: Oral (Rat) - 1.54 g/kg

CA PROPOSITION 65: No

4. CAS# 1309-37-1

DIIRON TRIOXIDE

PCT BY WT: 7-13

EXPOSURE LIMIT:

ACGIH TLV/TWA: 5 mg/m<sup>3</sup> 8 hours

OSHA PEL/TWA: 10 mg/m<sup>3</sup> 8 hours

MSDS ADS.COPPER

LD 50: Oral (Rat) - 10g/kg  
CA PROPOSITION 65: No

5. CAS# 12001-26-2  
MICA GROUP MINERALS  
PCT BY WT: 3-7 VAPOR PRESSURE: NA  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 3 mg/m<sup>3</sup> 8 Hours  
OSHA PEL/TWA: 20mp/ft<sup>3</sup> 8 Hours  
CA PROPOSITION 65: No

6. CAS# 80-62-6  
METHYL METHACRYLATE  
PCT BY WT: 0.1-1 VAPOR PRESSURE: 28 mm Hg @ 68F  
EXPOSURE LIMIT:  
ACGIH TLV/TWA: 50 ppm TWA  
ACGIH TLV/STEL: 100 ppm 15 minutes  
OSHA PEL/TWA: 100 ppm TWA  
LC50: Inhalation (Rat) - 78000 mg/m3  
LD50: Oral (Rat) - 7.87 g/kg  
CA PROPOSITION 65: No

7. PROPRIETARY COPOLYMER  
PCT BY WT: 7-13

This product contains pigments, which may become a dust nuisance when removed by abrasive blasting, sanding, or grinding.

This product contains one or more reported or suspected reproductive toxins.

SECTION 3 - HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

- EYES: Exposure to liquid may cause mild eye irritation. Symptoms may include stinging, tearing, and redness.
- SKIN: May cause skin defatting with prolonged exposure. Exposure may cause skin irritation. Prolonged or repeated exposure may dry the skin.
- INHALATION: Causes mild respiratory irritation. Breathing large amounts may be harmful. Symptoms of exposure may include irritation (nose, throat, respiratory tract) and CNS depression.
- INGESTION: Swallowing small amounts of this product during normal handling is not likely to cause harmful effects, but swallowing large amounts may be harmful.

CHRONIC EFFECTS

NOTICE: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. May cause respiratory and/or skin sensitization.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Any pre-existing respiratory or eye/skin conditions.

POSSIBLE ROUTES OF ENTRY

MSDS ADS.COPPER

Inhalation, ingestion, skin absorption.

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SECTION 4 - FIRST AID MEASURES

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EMERGENCY FIRST AID:

EYE CONTACT

If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water, holding eyelids apart. If symptoms persist, seek medical attention.

SKIN CONTACT

Remove contaminated shoes and clothing, and flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area thoroughly by washing with mild soap and water. If irritation or redness develops, seek medical attention. Launder clothing before reuse.

INHALATION

If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION

Do not induce vomiting. If possible, do not leave victim unattended. Seek immediate medical attention.

NOTE TO PHYSICIAN:

In case of inhalation of decomposition products in a fire, symptoms may be delayed.

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SECTION 5 - FIRE FIGHTING MEASURES

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FIRE AND EXPLOSIVE PROPERTIES OF THE CHEMICAL:

Flammability Classification . . . . . : FLAMMABLE Liquid-Class III  
Flashpoint . . . . . : 35 °F  
Explosive limits . . . . . : Lower - 2.1%

EXTINGUISHING MEDIA

Use National Fire Protection Association (NFPA) Class B extinguisher (carbon dioxide, dry chemical or foam).

FIRE-FIGHTING INSTRUCTIONS

During fire, a water spray can scatter flames and should be used by experienced firefighters. Firefighters should wear self-contained breathing apparatus with a full face piece operated in the positive pressure mode when fighting fires. Isolate damage area, keep unauthorized personnel out. Avoid spreading burning liquid with water used for cooling purposes.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Flammable liquid. Forms flammable mixtures with air at or above the flash point. This product can accumulate static charges, which can cause fire or explosion. This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode and flash back.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

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MSDS ADS.COPPER

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Eliminate all ignition sources. Spilled material may be absorbed into an appropriate absorbent material. Prevent spilled material from entering sewers, storm drains, other authorized treatment drainage systems, and natural waterways. Stop spill/release if it can be done, and stay away from spill. Isolate danger and keep unauthorized personnel out. Use non-sparking tools and explosion-proof equipment.

CLEAN-UP

Warn occupants in surrounding and downwind areas of fire and explosion hazard to stay clear. Remove from surface with suitable absorbents. If allowed by local authorities, sinking and/or suitable dispersants may be used in non-confined waters.

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SECTION 7 - HANDLING AND STORAGE

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HANDLING

Keep container closed. Handle and open container with care. Open container slowly to relieve any pressure. Do NOT cut, weld or puncture on or near container.

STORAGE Keep container(s) tightly closed. Use and store this product in a cool, dry, well-ventilated area away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Keep away from any incompatible material. Protect container(s) against physical damage.

SPECIAL COMMENTS

WARNING: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperatures and pressures, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources.

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SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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VENTILATION

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH for protection against chemicals in Sections (2 &/or 15).

EYE PROTECTION

Wear safety glasses or goggles to protect against exposure. Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other types of safety glasses.

PROTECTIVE GLOVES

Appropriate disposable gloves are acceptable, such as, Nitrile rubber gloves.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Physical State . . . . .	:	LIQUID
Vapor Pressure . . . . .	:	164.5 mm Hg at 68F
Vapor Density . . . . .	:	HEAVIER THAN AIR
Boiling Point Range . . . . .	:	>100 F
Specific Gravity . . . . .	:	0.99
Weight per Volume . . . . .	:	8.26 LB/GAL

MSDS ADS.COPPER

Evaporation Rate . . . . . : 7.48 (n-Butyl Acetate = 1)  
Volatile by Weight . . . . . : 67.7%  
Volatile by Volume . . . . . : 81.0%

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SECTION 10 - STABILITY AND REACTIVITY  
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STABILITY

This product is stable.

INCOMPATIBILITIES (Materials to Avoid)

This product can react violently with strong oxidizing agents such as chlorine, oxygen, or strong oxidizing acids, such as, nitric and sulfuric.

HAZARDOUS POLYMERIZATION

Will not occur under normal conditions.

CONDITIONS TO AVOID

Avoid heat, sparks, open flames and other sources of ignition.

HAZARDOUS PRODUCTS OF DECOMPOSITION

Heating to decomposition, as in a fire or welding, may produce hazardous fumes. Fumes may contain carbon monoxide, carbon dioxide, oxides of nitrogen, halogenated compounds and metal oxides.

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SECTION 11 - TOXICOLOGICAL INFORMATION  
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No data at this time.

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SECTION 12 - ECOLOGICAL INFORMATION  
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No data at this time.

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SECTION 13 - DISPOSAL CONSIDERATIONS  
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WASTE DISPOSAL

Dispose of this product in accordance with applicable local, county, state and federal regulations, by incinerating, or treating and disposing in approved facility. Do not incinerate closed containers.

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SECTION 14 - TRANSPORT INFORMATION  
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DOT HAZARD CLASS . . . . . : 3  
DOT PACKAGING GROUP . . . . . : PG II  
DOT LABEL . . . . . : RED  
DOT SHIPPING NAME . . . . . : PAINT  
DOT PLACARD . . . . . : FLAMMABLE  
UN/NA NUMBER . . . . . : UN1263

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SECTION 15 - REGULATORY INFORMATION  
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U.S. FEDERAL REGULATORY INFORMATION

TSCA SECTION 8(b) - INVENTORY STATUS:

All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals or are otherwise compliant with TSCA Regulations.

SARA 313 TOXIC CHEMICALS:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund

MSDS ADS.COPPER

Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

TOLUENE

CAS# 108-88-3 PCT BY WT: 10-30

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California Prop 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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SECTION 16 - OTHER INFORMATION  
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Date of issue . . . . . : 10/06/14  
Last Revision Date . . . . . : 10/06/14  
MSDS Prepared for . . . . . : ADS.COPPER  
MSDS Last Prepared . . . . . : NONE  
HMIS Rating: Health- 3 Flammability- 3  
Reactivity- 0

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This Material Safety Data Sheet conforms to the Hazard Communication Standard, 29 CFR 1910.1200(g) (4).

The above information pertains to this product as currently formulated and is based on the information available, as of this date. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

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Abbreviations used: int.- interior; ext.- exterior; MSDS - Material Safety Data Sheet; HMIS - Hazardous Materials Information System; CAS - Chemical Abstracts Services; pct - percent; wt - weight; mm Hg - millimeters of mercury; F - Fahrenheit; ACGIH - American Conference of Governmental Industrial Hygienists; TLV - Threshold Limit Value; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; TWA - Time-Weighted Average; STEL- Short Term Exposure Limit; N/A- Not applicable

IARC - International Agency for Research on Cancer; NE - Not established  
NTP - National Toxicological Program; CFR - Code of Federal Regulations;  
OSHA - Z 29CFR 1910, Subpart Z; VOC - Volatile Organic Compounds; TCC - Tag Closed Cup; LEL - Lower Explosive Limit; Mg/m3 or Mg/Cu M - milligram per cubic meter; mppcf - millions of particles per cubic foot; ppm - parts per million; NIOSH - National Institute of Occupational Safety and Health; MSHA - Mine Safety and Health Administration; CNS - Central Nervous System.