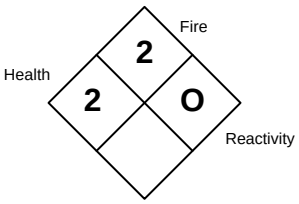
Material Safety Data Sheet
Obtura Cleaning Solution

Revision Date: June 22, 2011 Supercedes: May 4, 2009

SECTION I – Identification



Product Name: Obtura Cleaning Solution

Part Number(s): 822-609, 3069-01A, 823-703, 823-803

Chemical Name: d-Limonene / hydrocarbon mixture

Product Use: A solvent degreasing agent for removing tar, adhesives, grease, oil and other residues from metal and other hard surfaces.

Manufacturer Information: Obtura Spartan, 2260 Wendt St., Algonquin, IL 60102
Telephone: 1-800-344-1321
Fax: 636-343-5794
Website: www.obtura.com

Emergency Number: USA: 1-800-535-5053
Outside USA: 352-323-3500

SECTION II – Hazards Identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Emergency Overview:

Aerosol: DANGER: Flammable. Contents under pressure. Irritating to skin. May cause sensitization by skin contact.

Bulk: DANGER: Flammable. Harmful or fatal if swallowed. Irritating to skin. May cause sensitization by skin contact.

Primary route(s) of entry: Skin and eye contact. Inhalation.

Potential Acute Health Effects:

Eyes: Irritating to eyes

Skin: Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering. This product contains citrus d-limonene - a skin sensitizing agent.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache.

Ingestion: Product has a low order of acute oral toxicity, but ingestion of large quantities may cause nausea, vomiting, and gastrointestinal irritation. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No **IARC:** No **OSHA:** No **ACGIH:** No

Mutagenic Effects: None

Teratogenic Effects: None

Target Organs: None

Medical conditions aggravated by exposure:
Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms:
Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

SECTION III – Composition/ Information on Ingredients

Component	CASRN	Percent by Weight
Light Mineral Spirits / Stoddard Solvent or Solvent Naphtha (petroleum), Medium Aliphatic	8052-41-3 or 64742-88-7	50 - 70%
d-limonene	5989-27-5	10 - 40%
3-methoxy-3-methylbutan-1-ol	56539-66-3	0 - 20%
Carbon dioxide (aerosol only)	124-38-9	1-5%

SECTION IV – First Aid Measures

Eyes: Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.

Skin: Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.

Inhalation: Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

SECTION V – Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

General Fire Hazards: High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers.

Firefighting media: SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use CO2, water spray, fog or foam. Cool containing vessels with water to prevent pressure build-up, auto ignition or explosions.

Sensitivity to Impact: None **Sensitivity to Static Discharge:** Yes.

Protection Clothing (Fire): Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Special Remarks on Explosion Hazards: Aerosols may explode when heated and overwhelm sprinkler systems.

SECTION VI – Accidental Release Measures

Containment Procedures

Small Spill and Leak: Eliminate ignition sources. Absorb with an inert material and dispose of properly.

Large Spill and Leak: Eliminate ignition sources. Secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal.

Clean-Up Procedures: Contain and recover spilled liquid when possible.

Evacuation Procedures: Ventilate area of leak or spill. Keep unnecessary and unprotected people away.

Special Procedures: Eliminate ignition sources. Ventilate area. Wear appropriate protective equipment during cleanup.

SECTION VII – Handling and Storage

Handling: DO NOT spray into or around ignition sources. Do not allow material to come into contact with eyes or skin. Wear appropriate protective equipment during handling. Keep container closed. Avoid breathing vapors or mists. Use only with adequate ventilation. Wash thoroughly after handling.

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store between 40°F and 120°F (4.4°C and 49°C).

Precautions to be taken in handling and storage: *Store aerosols as Level 3 Aerosol (NFPA 30B).* Store all materials in a dry, well-ventilated area. Avoid breathing vapors.

SECTION VIII – Exposure Controls/Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEL	NIOSH
Light Mineral Spirits/ Stoddard Solvent or Solvent Naphtha (petroleum), Medium Aliphatic	8052-41-3 or 64742-88-7	500 ppm	Not Established	100 ppm	Not Established	350 mg/m^3 TWA 1800 mg/m^3 CL
d-limonene	5989-27-5	Not Established	Not Established	Not Established	Not Established	Not Established
3-methoxy-3-methylbutan-1-ol	56539-66-3	Not Established	Not Established	Not Established	Not Established	Not Established
Carbon dioxide (aerosol only)	124-38-9	5,000 ppm	Not Established	5,000 ppm	30,000 ppm	5,000 ppm TWA 30,000 ppm STEL

*****Supplier Recommendation

Engineering controls: Provide general and/or local exhaust ventilation to keep exposures below the exposure guidelines listed above.

Personal protective equipment

Eye protection: Safety glasses with side shields conforming to appropriate regulations. Eye wash fountain and emergency shower facilities are recommended.

Hand protection: Normally no hand protection is required; however, if product will be used for an extended period, contact to skin may occur. If so, use chemical resistant gloves conforming to appropriate regulations. Please observe the instructions regarding permeability and breakthrough time that are provided by the supplier of the gloves.

Respiratory protection: Typical use of this product under normal conditions does not require the use of respiratory protection. If airborne concentrations are above the applicable exposure limits (listed above), use NIOSH approved respiratory protection (i.e., organic vapor cartridge).

General Hygiene Considerations: Wash thoroughly after handling. Have eye-wash facilities immediately available.

SECTION IX – Physical and Chemical Properties

Appearance: Liquid

Odor: Naphtha / orange

Solubility Description: <15% in water

Boiling Point: >150°C (302°F)

Specific Gravity (H2O=1): 0.82 - 0.86 @ 20°C

Vapor Density (air = 1): >1

Vapor Pressure: <5 mmHg at 20°C

Rule 1171 PPc: <5 mmHg at 20°C

V.O.C. Content: Aerosol: 97.2%, 816 g/L, 6.8 lb/gal per CARB, OTC, EPA definition
Bulk: 100%, 839 g/L, 7.0 lb/gal per CARB, OTC, EPA definition

Melting Point: Not Established

pH: Not Applicable

Heat of combustion: Aerosol: >30 kJ/g
Bulk: >30 kJ/g

Color: Clear, slightly off white

Evaporation Rate: >0.1 (BuAc= 1)

Flash Point: 40°C(104°F) – dispensed liquid

Flash Point Method: Tag-Closed Cup

Decomposition Temperature: Not Established

Auto ignition temperature: > 200°C(392°F)

Flammable limits (estimated): LOWER: 0.7%
UPPER: 6.0%

Partition Coefficient (octanol/water): Not Established

Odor Threshold: Not Established

Viscosity: <3 cSt @25°C

Volatiles: 100%

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SECTION X – Chemical Stability and Reactivity

Chemical Stability: Product is stable under recommended storage conditions.

Conditions to Avoid: Keep away from ignition sources and extreme temperatures.

Incompatibility: Reactive or incompatible with oxidizing agents. Avoid photoreactive agents and strong inorganic and organic acids.

Hazardous Decomposition: These products are carbon oxides (CO, CO2) and hydrocarbons.

Hazardous Polymerization: Will not occur.

SECTION XI – Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

An acute toxicity study of this product has not been conducted. Information given in this section relates only to individual constituents contained in this preparation.

B: Component Analysis

Ingredients	CASRN	LC-50	LD-50
Solvent Naphtha (petroleum), Medium Aliphatic	8052-41-3 / 64742-88-7	> 5,500 mg/m^3/rat/4hr	> 5,000 mg/kg/oral/rat* > 3,000 mg/kg/dermal/rat*
d-limonene	5989-27-5	Not Established	4,400 mg/kg/oral/rat > 5,000 mg/kg/dermal/rabbit
3-methoxy-3-methylbutan-1-ol	56539-66-3	Not Established	4.3 g/kg/oral/rat > 2,000 mg/kg/dermal rat
Carbon dioxide (aerosol only)	124-38-9	470,000 ppm/rat/30min	Not Appropriate

*Supplier Data

SECTION XII – Ecological Information

Mobility: Semi-volatile. Readily absorbed into soil.

Persistence and degradability: Only slightly biodegradable

Bioaccumulative potential: Minimal bioaccumulation potential

Other adverse effects: None known.

Ecological studies have not been conducted for this product. The following information is available for component(s) of this product.

Ecotoxicology:

Effect on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	d-limonene	5989-27-5	4-day LC_{50}	Oncorhynchus mykiss	35,000 µg/L
			96hr EC_{50}	Pimephales promelas	1,490,000 µg/L
	3-methoxy-3-methylbutan-1-ol	56539-66-3	48hr EC_{50}	Oryzias latipes	7,400 ppm*
Acute Toxicity on Daphnia	No Data Available				
Bacterial Inhibition					
Growth Inhibition of Algae					
Bioaccumulation in Fish					

*Supplier Data

SECTION XIII – Disposal Considerations

Waste Status: Aerosol cans, if depressurized and emptied to less than 1 inch (2.54 cm) of fluid contents, are classified as non-hazardous waste under 40 CFR 261.7 (U.S.). If disposed of in its received form, the aerosol product carries waste codes D001 and D003 (U.S.). If disposed of in its received form, the bulk product carries waste code D001 (U.S.).

Disposal: Waste must be disposed of in accordance with national, regional, provincial, and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.

SECTION XIV – Transportation Information

Bulk

D.O.T. Ground	**Shipping Name:**	Not Regulated	**UN Number:**	NA
	Hazard Class:	NA	**Technical Name:**	NA
	Subclass:	NA	**Hazard Label:**	NA
	Packing Group:	NA		
Road/Rail – ADR/RID	**UN no:**	1993	**ADR Class:**	3
	Packing Group:	III	**Classification Code:**	F1
	Name and Description:	Flammable Liquid, n.o.s.	**Hazard ID No.:**	33
	Labeling:	3	**Technical Name:**	Naptha, d-limonene
IMDG-IMO	**UN no:**	1993	**Class:**	3
	Shipping Name:	Flammable Liquid, n.o.s.	**Subsidiary Risk:**	NA
	Labeling:	3	**Packing Group:**	III
	Packing Instructions:	P001, LP01	**EmS:**	F-E, S-E
	Marine pollutant:	YES	**Technical Name:**	Naptha, d-limonene
IATA-ICAO	**UN no:**	1993	**Class:**	3
	Shipping Name:	Flammable Liquid, n.o.s.	**Subclass:**	NA
	Packing Instructions:		**Packing Group:**	III
	Labeling:	Flammable Liquid	**Technical Name:**	Naptha, d-limonene

The preceding information is subject to change and must be verified prior to shipment. It is the responsibility of anyone offering hazardous materials for shipment to ensure compliance with all applicable regulations.

SECTION XV – Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D001**,** D003 (aerosols only)

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): None

Toxic Substances Control Act (TSCA): All components of this product are TSCA inventory listed and/or are exempt.

Superfund Amendments and Reauthorization Act (SARA) Title III
SARA Section 311/312 (40 CFR 370) Hazard Categories: Sudden Release of Pressure (Aerosol Only), Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): No individual Section 313 component is present at or above 1%.

Section 112 Hazardous Air Pollutants (HAPs): None

State Regulations

California: This product does **not** contain chemical(s) known to the State of California to cause cancer, birth defects or reproductive harm.

California and OTC States: This product is for manufacturing use only - not for retail sale.

New Jersey RTK:
Aerosol: Solvent Naphtha (petroleum), medium aliphatic 64742-88-7 ● d-limonene 5989-27-5 ● 3-methoxy-3-methylbutan-1-ol 56539-66-3 ● Carbon dioxide 124-38-9
Bulk: Solvent Naphtha (petroleum), medium aliphatic 64742-88-7 ● d-limonene 5989-27-5 ● 3-methoxy-3-methylbutan-1-ol 56539-66-3

International Regulations

Canadian Environmental Protection Act: All of the components of this product are included on the Canadian Domestic Substances list (DSL).

Canadian Workplace Hazardous Materials Information System (WHMIS): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Classification: Aerosol – Class A, Class B5, Class D2B

WHMIS Classification: Bulk – Class B3, Class D2B

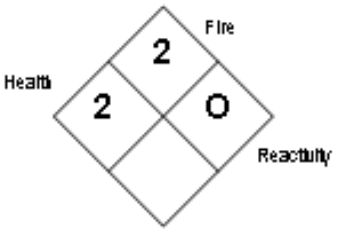
Other Regulations

Montreal Protocol listed ingredients:	None
Stockholm Convention listed ingredients:	None
Rotterdam Convention listed ingredients:	None
RoHS Compliant:	Yes

SECTION XVI – Other Information

HMIS 1996	HMIS III	
Health: 2	Health:	[/]2
Flammability: 2	Flammability Aerosol:	4
	Flammability Bulk:	2
Reactivity: 0	Physical Hazard Aerosol:	2
	Physical Hazard Bulk:	0

NFPA



*****IMPORTANT*****

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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