



**SAFETY DATA SHEET**

METHANOL  
160329

Revision Date: 04/11/2013  
Print Date: 3/3/2014  
MSDS Number: 100000002748  
Version: 1.0

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

RESEARCH PRODUCTS, INC.  
6311 HIGHWAY 90 W.  
THEODORE, AL 36582

Regulatory Information Number	1-251-653-0030
Telephone	1-251-653-0030
Emergency telephone number	1-800-535-5035

Product name                      METHANOL

Product code                      160329

Product Use Description        Fuel, Solvent.

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance: liquid, colourless

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. HARMFUL IF SWALLOWED. MAY CAUSE BLINDNESS. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.      MAY BE HARMFUL IF INHALED.

**Potential Health Effects**

**Exposure routes**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

**Eye contact**

May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

**Skin contact**



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May cause mild skin irritation. Symptoms may include redness and burning of skin. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

### Ingestion

Swallowing this material may be harmful.

### Inhalation

Breathing of vapor or mist is possible. It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

### Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), Liver, kidney, pancreas, Heart, Central nervous system. Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

### Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), muscle cramps, pain in the abdomen and lower back, Blurred vision, Shortness of breath, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), visual impairment (including blindness), coma

### Target Organs

Exposure to lethal concentrations of methanol has been shown to cause damage to organs including liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: liver abnormalities, central nervous system damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: visual impairment



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**Carcinogenicity**

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard**

Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Components	CAS-No. / trade secret no.	Concentration
Methanol	67-56-1	90 - 100%

**4. FIRST AID MEASURES**

**Eyes**

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

**Skin**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

**Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.





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### Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

### Notes to physician

**Hazards:** This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis.

**Treatment:** No information available.

## 5. FIREFIGHTING MEASURES

### Suitable extinguishing media

Dry chemical, Carbon dioxide (CO<sub>2</sub>), Water spray

### Hazardous combustion products

carbon dioxide and carbon monoxide

### Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.



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**NFPA Flammable and Combustible Liquids Classification**  
Flammable Liquid Class IB

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

**Environmental precautions**

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

**Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**Other information**

Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapours/mists with a water spray jet.

**7. HANDLING AND STORAGE**

**Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and





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grounding during product transfer as described in National Fire Protection Association document NFPA 77.

**Storage**

Store in a cool, dry, ventilated area, away from incompatible substances.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Methanol		67-56-1
ACGIH	8-hour, time-weighted average	200 ppm
ACGIH	Short-term exposure limit	250 ppm
NIOSH	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek	200 ppm
NIOSH	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek	260 mg/m3
NIOSH	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday	250 ppm
NIOSH	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday	325 mg/m3
OSHA	8-hour time weighted average	200 ppm
OSHA	8-hour time weighted average	260 mg/m3
OSHA	Short-term exposure limit	250 ppm
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average

**General advice**

**Exposure controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Eye protection**

Not required under normal conditions of use. Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.

**Skin and body protection**

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier).  
Natural Rubber

**Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state

liquid



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<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Physical state</b>	liquid
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Colour	colourless, clear
Odour	mild, characteristic
Boiling point/boiling range	148.5 °F / 64.7 °C
Melting point/range	Freezing Point -144.0 °F / -97.8 °C
pH	not applicable
Flash point	52 °F / 11 °C
Evaporation rate	4.1
Lower explosion limit/Upper explosion limit	6 %(V) / 36.5 %(V)
Vapour pressure	12.800 kPa @ 68 °F / 20 °C
Relative vapor density	1.105 @ 59 °F / 15 °C
Water solubility	completely soluble
Auto-ignition temperature	867 °F / 464 °C

**10. STABILITY AND REACTIVITY**

**Stability**

Stable.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible products**

Strong oxidizing agents, strong mineral acids, strong organic acids, strong bases, aluminum, sodium, peroxides, Lead, Zinc

**Hazardous decomposition products**

carbon dioxide and carbon monoxide, formaldehyde-like

**Hazardous reactions**

Product will not undergo hazardous polymerization.



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**11. TOXICOLOGICAL INFORMATION**

**Acute oral toxicity**

Acute oral toxicity - : no data available  
Product

**Acute inhalation toxicity**

Acute inhalation toxicity - : no data available  
Product

**Acute inhalation toxicity - Components**

Methanol	: LC50: 128.2 mg/l Exposure time: 4 h Species: rat
	LC50: 87.6 mg/l Exposure time: 6 h Species: rat

**Acute dermal toxicity**

Acute dermal toxicity - : no data available  
Product

**Acute toxicity (other routes of administration)**

Acute toxicity (other : no data available  
routes of administration)

**12. ECOLOGICAL INFORMATION**

**Biodegradability**

Biodegradability - Product : no data available

**Biodegradability - Components**

Methanol : aerobic 72 % Remarks: Readily biodegradable



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**Bioaccumulation**

Bioaccumulation - Product : no data available

**Bioaccumulation - Components**

Methanol : Species: Cyprinus carpio (Carp) Exposure time: 72 d  
Temperature: 20 °C Concentration: 5 mg/l  
Bioconcentration factor (BCF): 1.0

**Ecotoxicity effects**

**Toxicity to fish**

Toxicity to fish - Product : no data available

**Toxicity to fish - Components**

Methanol : LC50: 15,400 mg/l  
Exposure time: 96 h  
Species: Lepomis macrochirus (Bluegill sunfish)

**Toxicity to daphnia and other aquatic invertebrates**

Toxicity to daphnia and other aquatic invertebrates  
- Product : no data available

**Toxicity to daphnia and other aquatic invertebrates - Components**

Methanol : EC50: 10,000 mg/l  
Exposure time: 48 h  
Species: Daphnia

**Toxicity to algae**

Toxicity to algae - Product : no data available

**Toxicity to algae - Components**

Methanol : EC50: 22,000 mg/l





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Exposure time: 96 h  
Species: *Scenedesmus capricornutum* (fresh water algae)  
Test Type: Growth inhibition

**Toxicity to bacteria**

Toxicity to bacteria - : no data available  
Product

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

**14. TRANSPORT INFORMATION**

**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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**U.S. DOT - ROAD**

UN	1230	Methanol	3	II	
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**U.S. DOT - RAIL**

UN	1230	Methanol	3	II	
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**U.S. DOT - INLAND WATERWAYS**



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UN	1230	Methanol	3		II
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**TRANSPORT CANADA - ROAD**

UN	1230	METHANOL	3	(6.1)	II
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**TRANSPORT CANADA - RAIL**

UN	1230	METHANOL	3	(6.1)	II
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**TRANSPORT CANADA - INLAND WATERWAYS**

UN	1230	METHANOL	3	(6.1)	II
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

UN	1230	METHANOL	3	(6.1)	II
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

UN	1230	Methanol	3		II
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

UN	1230	Methanol	3		II
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

UN	1230	METANOL	3	(6.1)	II
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\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

**15. REGULATORY INFORMATION**

**California Prop. 65**

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.	Methanol
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**SARA Hazard Classification**  
**SARA 311/312 Classification**



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Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**New Jersey RTK Label Information**

Methanol	67-56-1
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**Pennsylvania RTK Label Information**

Methanol	67-56-1
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**Notification status**

United States TSCA Inventory	y (positive listing)
Canadian Domestic Substances List (DSL)	y (positive listing)

**Reportable quantity - Product**

US. EPA CERCLA Hazardous Substances (40 CFR 302)	5000 lbs
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**Reportable quantity-Components**

Methanol	67-56-1	5000 lbs
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	HMIS	NFPA
Health	2*	2
Flammability	3	3
Physical hazards	0	
Instability		0
Specific Hazard	--	--

**16. OTHER INFORMATION**

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we





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do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661)  
MSDS@nexeosolutions.com.