

# SAFETY DATA SHEET

May 01, 2015

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**Product ID :** 518-1014FF00161

**Product Name :**

**Revision Date :** May 01, 2015

**Date Printed :** Jun 10, 2015

**Version:** 1.0

**Supersedes Date :** N.A.

**Manufacturer's Name :**

**Address :**

**Emergency Phone :**

**Information Phone :**

**Fax :**

**Product/Recommended Uses:** For Further Information, Refer to the Product Technical Data Sheet.

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification:

Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Acute Toxicity (Inhalation) - Category 4

Skin Irritation - Category 2

Respiratory Sensitizer (Solid/Liquid) - Category 1

Skin Sensitizer - Category 1

Carcinogenicity - Category 2

Eye Irritation - Category 2

Acute toxicity, Oral - Category 5

### Pictograms:



### Signal Word:

Danger

### Hazardous Statements - Health:

H335 - May cause respiratory irritation

H303 - Maybe harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure.

H315 - Causes skin irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer.

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

### Precautionary Statements - General:

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.  
P103 - Read label before use.

**Precautionary Statements - Prevention:**

- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 - Use only outdoors or in a well-ventilated area.
- P233 - Keep container tightly closed.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 - Wash thoroughly after handling.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P284 - [In case of inadequate ventilation] wear respiratory protection.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.

**Precautionary Statements - Response:**

- P304 - IF INHALED:
- P340 - Remove person to fresh air and keep comfortable for breathing.
- P312 - Call a POISON CENTER/doctor if you feel unwell.
- P314 - Get Medical advice/attention if you feel unwell.
- P302 - IF ON SKIN:
- P352 - Wash with plenty of water.
- P321 - Specific treatment (see section 4 on this SDS).
- P332 - If skin irritation occurs:
- P313 - Get medical advice/attention.
- P362 - Take off contaminated clothing.
- P364 - And wash it before reuse.
- P342 - If experiencing respiratory symptoms:
- P311 - Call a POISON CENTER/doctor.
- P333 - If skin irritation or a rash occurs:
- P308 - IF exposed or concerned:
- P305 - IF IN EYES:
- P351 - Rinse cautiously with water for several minutes.
- P338 - Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 - If eye irritation persists:

**Precautionary Statements - Storage:**

- P403 - Store in a well-ventilated place.
- P405 - Store locked up.

**Precautionary Statements - Disposal:**

- P501 - Dispose of contents/ container to an approved waste disposal plant.

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**SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS**

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CAS	Chemical Name	% by Weight
0000101-68-8	4,4'-METHYLENEDIPHENYL DIISOCYANATE	64% - 100%
0001333-86-4	CARBON BLACK	0.2% - 0.4%

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**SECTION 4) FIRST-AID MEASURES**

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**Inhalation:**

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell or concerned.

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Eliminate all ignition sources if safe to do so.

**Skin Contact:**

IF exposed or concerned: Get medical advice/attention.

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before re-use or discard.

**Eye Contact:**

Avoid direct contact. Wear chemical protective gloves, if necessary.

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

**Ingestion:**

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

IF exposed or concerned: Get medical advice/attention.

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**SECTION 5) FIRE-FIGHTING MEASURES**

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**Suitable Extinguishing Media:**

Dry chemical, foam, carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

**Unsuitable Extinguishing Media:**

Water may be ineffective but can be used to cool containers exposed to heat or flame.

**Specific Hazards in Case of Fire:**

Keep container tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard.

**Fire-fighting Procedures:**

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Water may be used to cool closed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Special Protective Actions:**

Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required.

Care should always be exercised in dust/mist areas.

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**SECTION 6) ACCIDENTAL RELEASE MEASURES**

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**Emergency Procedure:**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

**Recommended Equipment:**

Positive pressure, full-face piece self-contained breathing apparatus(SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**Personal Precautions:**

Avoid breathing vapors. Avoid contact with skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

**Environmental Precautions:**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

**Methods and Materials for Containment and Cleaning up:**

Ventilate and remove with inert absorbent.

Waste may be hazardous as defined under the resource conservation and recovery act (RCRA) 40 CFR 261. Waste from these products must be tested for ignitability. Waste from ultra-bond 20 wash primer must be tested for chromium and zinc extractability.

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**SECTION 7) HANDLING AND STORAGE**

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**General:**

Wash hands after use.  
Do not get in eyes, on skin or on clothing.  
Do not breathe vapors or mists.  
Use good personal hygiene practices.  
Eating, drinking and smoking in work areas is prohibited.  
Remove contaminated clothing and protective equipment before entering eating areas.

Eyewash stations and showers should be available in areas where this material is used and stored.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - extinguish all flames, pilot lights, and heaters - turn off stoves, electric tools and appliances, and any other sources of ignition.  
These products must be mixed with other components before use. Before opening the packages, read and follow warning labels on all components.

**Ventilation Requirements:**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**Storage Room Requirements:**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

Ground and bond containers and receiving equipment. Avoid static electricity by grounding.

DOL Storage Category : 1B

Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them. Ground all structures, transfer containers and equipment to conform to the national electrical code. Use procedures that prevent static electrical sparks. Static electricity may accumulate and create a fire hazard.

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**SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**Eye Protection:**

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

**Skin Protection:**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit.

Use of barrier cream on exposed skin is recommended.

**Respiratory Protection:**

If exposures cannot be controlled below the PEL limit, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA.

When sanding, wirebrushing, abrading, burning or welding the dried film, wear a particulate respirator approved by NIOSH/MSHA for protection against non-volatile materials.

**Appropriate Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA- Tables- Z1,2,3	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen

4,4'-METHYLENEDIPHENYL DIISOCYANATE	0.02 ceiling	0.2 ceiling			1			0.005	0.050			
CARBON BLACK		3.5			1				3.5a			1

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
4,4'-METHYLENEDIPHENYL DIISOCYANATE	0.005	0.051		
CARBON BLACK		3 (l)		

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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### Physical and Chemical Properties

Density	10.16 lb/gal
Specific Gravity	1.22
VOC Regulatory	0.00 lb/gal

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Appearance	Thin Pigmented Liquid
Odor Threshold	N.A.
Odor Description	Citrus
pH	N.A.
Water Solubility	N.A.
Flammability	N/A
Flash Point Symbol	N.A.
Flash Point	200 °F
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	N.A.
Vapor Density	Heavier than air
Freezing Point	N.A.
Melting Point	N.A.
Low Boiling Point	400 °F
High Boiling Point	N.A.
Auto Ignition Temp	N.A.
Decomposition Pt	N.A.
Evaporation Rate	Slower than ether
Coefficient Water/Oil	N.A.

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## SECTION 10) STABILITY AND REACTIVITY

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### Stability:

Material is stable at standard temperature and pressure.

### Conditions to Avoid:

None known.

### Hazardous Reactions/Polymerization:

Will not occur.

### Incompatible Materials:

This product will react with any material containing active hydrogens, such as water, alcohol, ammonia, amines, alkalis and acids, the reaction with water is slow under 50°C, but is accelerated at higher temperature and in the presence of alkalis, tertiary amines, and metal compounds.

**Hazardous Decomposition Products:**

Carbon dioxide, carbon monoxide, oxides of metals in section III, oxides of phosphorus and phosphoric acid fumes.

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**SECTION 11) TOXICOLOGICAL INFORMATION**

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**Skin Corrosion/Irritation:**

Redness and itching or burning sensation may indicate skin exposure.

Causes skin irritation

**Serious Eye Damage/Irritation:**

Redness and itching or burning sensation may indicate eye exposure.

Causes serious eye irritation

**Respiratory/Skin Sensitization:**

May cause nervous system depression.

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

**Carcinogenicity:**

Suspected of causing cancer.

**Germ Cell Mutagenicity:**

No data available

**Reproductive Toxicity:**

No data available

**Specific Target Organ Toxicity - Single Exposure:**

May cause respiratory irritation

**Specific Target Organ Toxicity - Repeated Exposure:**

May cause damage to organs through prolonged or repeated exposure.

**Aspiration Hazard:**

No data available

**Acute Toxicity:**

Extreme overexposure may result in unconsciousness and possibly death.

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

0001333-86-4 CARBON BLACK

LC50 (rat): 6750 mg/m3 (4-hour exposure); cited as 27000 mg/m3 (27 mg/L) (1-hour exposure) (3)

0000101-68-8 4,4'-METHYLENEDIPHENYL DIISOCYANATE

LC50 (rat): 369-490 mg/m3 (aerosol) (4-hour exposure) (1)

LC50 (rat): 178 mg/m3 (17.4 ppm) (duration of exposure not reported) (2)

LD50 (oral, rat): greater than 10,000 mg/kg (1,2)

LD50 (dermal, rabbit): greater than 10,000 mg/kg (1)

LD50 (oral, mouse): 2,200 mg/kg (3)

**Chronic Exposure**

0001333-86-4 CARBON BLACK

CARCINOGENIC EFFECTS: In 1996, the IARC reevaluated Carbon Black as a Group 2B carcinogen. This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence.

Prolonged inhalation of Carbon black can result in lung disease. Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.

**Potential Health Effects - Miscellaneous**

0001333-86-4 CARBON BLACK

Is an IARC, NTP or OSHA carcinogen. Has shown carcinogenic activity in laboratory animals at high doses. Significance to man is unknown. The following medical conditions may be aggravated by exposure: asthma, respiratory disease. WARNING: This chemical is known to the State of California to cause cancer.

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity:**

No data available.

**Mobility in Soil:**

No data available.

**Other Adverse Effects:**

No data available.

**Bio-accumulative Potential**

0001333-86-4 CARBON BLACK

A relevant bioaccumulation potential of carbon black is not expected based on its insolubility in organic solvents and in water. Furthermore, since the aggregate diameter of carbon black varies between 80 nm and 810 nm, bioaccumulation of particulate carbon black is not likely owing to the large diameter of the solid aggregate particles.

**Persistence and Degradability**

0001333-86-4 CARBON BLACK

Carbon Black's insolubility in water results in it not being biodegradable in any medium or by biota. It is considered persistent in the natural environment.

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal:**

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

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**SECTION 14) TRANSPORT INFORMATION**

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**U.S. DOT Information:**

Not regulated.

**IMDG Information:**

Not regulated.

**IATA Information:**

Not regulated.

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**SECTION 15) REGULATORY INFORMATION**

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CAS	Chemical Name	% By Weight	Regulation List
0000101-68-8	4,4'-METHYLENEDIPHENYL DIISOCYANATE	64% - 100%	CERCLA,HAPS,SARA312,SARA313,VHAPS,VOC,TSCA
0001333-86-4	CARBON BLACK	0.2% - 0.4%	SARA312,TSCA,California Proposition 65

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**SECTION 16) OTHER INFORMATION**

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**OTHER INFORMATION:**

Note: As per GHS, category 1 is the greatest level of hazard within each class.

**GLOSSARY:**

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ - Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA - Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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