

SAFETY DATA SHEET

Page: 1

Revision Date: 10/10/2007

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MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Carolina's Auto Supply
House

2135 Tipton Dr.
Charlotte, NC 28206-1066 Telephone 1-704-334-4646

Product name	PRO Gun Cleaner GC-5
Product code	PRO-GC-5
Product Use Description	Gun Cleaner

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, Colorless to water white to pale yellow

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS.

Potential Health Effects

Routes of Exposure

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

Eye Contact

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin Contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. 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

SAFETY DATA SHEET

Page: 2

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.). Breathing air containing n-butyl acetate, which results from its use in aerosol applications, may cause delayed lung injury.

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, central nervous system, pancreas, heart, blood-forming system, Upper respiratory tract, male reproductive system, immune system, auditory system, eye, 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., Individuals with preexisting heart disorders maybe more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, redness of the skin, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), runny nose, blurred vision, weakness, cough, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, effects on memory, muscle cramps, involuntary eye movement, pain in the abdomen and lower back, mild, temporary changes in the liver, effects on heart rate, shortness of breath, lack of coordination, discomfort in the chest, respiratory depression (slowing of the breathing rate), high blood sugar, lowered blood pressure, confusion, irregular heartbeat, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), bloody urine, anesthesia, narcosis (dazed or sluggish feeling), lung edema (fluid buildup in the lung tissue), kidney damage, blood abnormalities (breakage of red blood cells), liver damage, visual impairment (including blindness), respiratory failure, coma

Target Organs

Diethylene glycol monobutyl ether has been found to cause breakage of red blood cells following ingestion in rats. Injury to other organs including liver and kidneys was considered secondary to the effect on the blood., This product contains ethanol. Alcoholic beverage consumption has been associated with brain damage, heart damage, and pancreatitis in humans. The relevance of these findings to ethanol exposure in industrial environments is uncertain., Acute lethal exposure to ethylene glycol monobutyl

SAFETY DATA SHEET

Page: 3

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

ether in animal studies has resulted in congestion of organs including kidney, spleen, and lung., This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. The significance of this effect with respect to human health is uncertain., Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans., This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals., Breathing isopropanol vapors has caused damage to the lining of the middle ear in experimental animals. The relevance of this finding to humans is uncertain., 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., Based on animal studies, exposure to methyl ethyl ketone (MEK) increases the onset of peripheral neuropathy caused by exposure to methyl butyl ketone (MBK), and/or n-hexane, and/or ethyl butylketone. MEK alone has not been shown to cause peripheral neuropathy., Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene., Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: blood abnormalities, effects on male fertility, respiratory tract damage (nose, throat, and airways), pancreatic damage, liver damage, brain damage, kidney damage, mild, reversible spleen effects, cataracts, anemia, lung damage, testis damage, effects on hearing, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: central nervous system effects, liver abnormalities, visual impairment, kidney damage, anemia, effects on hearing

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). n-Propanol caused an increased cancer incidence in rats when administered by injection or by placing the material into the stomach. Problems with these studies, including inadequate evaluation of the data, prevent their use in evaluating n-propanol for carcinogenicity. n-Propanol is not listed as carcinogenic by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or the Occupational Safety and Health Administration

SAFETY DATA SHEET

Page: 4

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

(OSHA). This product contains ethanol. The International Agency for Research on Cancer (IARC) has determined that exposure to ethanol through chronic human consumption of alcoholic beverages can cause cancer. The relevance of this finding to ethanol exposure in industrial environments is uncertain. Ethylene glycol monobutyl ether has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. In studies with small numbers of animals, isobutyl alcohol caused cancer when given through a stomach tube or when injected under the skin. The relevance of these findings to humans is unknown.

Reproductive Hazard

This material (or a component) may be harmful to the human fetus based on positive test results with laboratory animals., This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain., 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., Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans., This product contains ethanol. Alcoholic beverage consumption has been associated with birth defects in humans. The relevance of this finding to ethanol exposure in industrial environments is uncertain., Cumene (isopropylbenzene) did not cause harm to the unborn pup in laboratory animal studies, even at levels which were harmful to the pregnant animal., Diethylene glycol monobutyl ether did not cause harm to the fetus when given orally or when applied to the skin in laboratory animal studies.

Other Information

No data

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
ACETONE	67-64-1	>=15-<20%
PROPANOL, NORMAL	71-23-8	>=10-<15%
METHANOL	67-56-1	>=5-<10%
TOLUENE	108-88-3	>=5-<10%
ETHANOL	64-17-5	>=5-<10%
XYLENE	1330-20-7	>=5-<10%
N-BUTYL ACETATE	123-86-4	>=5-<10%
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8	>=5-<10%

SAFETY DATA SHEET

Page: 5

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

METHYL ETHYL KETONE	78-93-3	>=5-<10%
ISOPROPANOL	67-63-0	>=1.5-<5%
PROPYL ACETATE NORMAL	109-60-4	>=1.5-<5%
ETHYL ACETATE	141-78-6	>=1.5-<5%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	>=1.5-<5%
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	>=1.5-<5%
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	>=1.5-<5%
TRIMETHYLBENZENE 1,2,4-	95-63-6	>=1.5-<5%
METHYL NORMAL AMYL KETONE	110-43-0	>=1.5-<5%
ISOBUTANOL	78-83-1	>=1.5-<5%
BUTANOL NORMAL	71-36-3	>=1.5-<5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and 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.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to Physician

Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting. This material (or a component) has produced

SAFETY DATA SHEET

Page: 6

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

hyperglycemia and ketosis following substantial ingestion. 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. Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. Administration of high doses of isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals. Diglycol ethers may cause acidosis.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

dry chemical, carbon dioxide (CO₂)

Hazardous Combustion Products

carbon dioxide and carbon monoxide, Hydrocarbons, nitrogen oxides, toxic fumes

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. 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 liquid with water used for cooling purposes.

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.

SAFETY DATA SHEET

Page: 7

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

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 and collect spillage 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

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

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 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

ACETONE

67-64-1

ACGIH	time weighted average	500 ppm
ACGIH	Short term exposure limit	750 ppm
NIOSH	Recommended exposure limit	250 ppm
	(REL):	
NIOSH	Recommended exposure limit	590 mg/m3
	(REL):	
OSHA Z1	Permissible exposure limit	1,000 ppm

SAFETY DATA SHEET

Page: 8

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

OSHA Z1	Permissible exposure limit	2,400 mg/m3
PROPANOL, NORMAL		71-23-8
NIOSH	Recommended exposure limit (REL):	200 ppm
NIOSH	Recommended exposure limit (REL):	500 mg/m3
NIOSH	Short term exposure limit	250 ppm
NIOSH	Short term exposure limit	625 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	500 mg/m3
ACGIH	time weighted average	100 ppm
METHANOL		67-56-1
ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	250 ppm
NIOSH	Recommended exposure limit (REL):	200 ppm
NIOSH	Recommended exposure limit (REL):	260 mg/m3
NIOSH	Short term exposure limit	250 ppm
NIOSH	Short term exposure limit	325 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	260 mg/m3
TOLUENE		108-88-3
ACGIH	time weighted average	20 ppm
NIOSH	Recommended exposure limit (REL):	100 ppm
NIOSH	Recommended exposure limit (REL):	375 mg/m3
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	560 mg/m3
OSHA Z2	time weighted average	200 ppm
OSHA Z2	Ceiling Limit Value:	300 ppm
OSHA Z2	Maximum concentration:	500 ppm
ETHANOL		64-17-5
ACGIH	time weighted average	1,000 ppm
NIOSH	Recommended exposure limit (REL):	1,000 ppm
NIOSH	Recommended exposure limit (REL):	1,900 mg/m3
OSHA Z1	Permissible exposure limit	1,000 ppm
OSHA Z1	Permissible exposure limit	1,900 mg/m3
XYLENE		1330-20-7
ACGIH	time weighted average	100 ppm
ACGIH	Short term exposure limit	150 ppm
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	435 mg/m3
NIOSH	Recommended exposure limit (REL):	100 ppm
NIOSH	Recommended exposure limit	435 mg/m3

SAFETY DATA SHEET

Page: 9

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

	(REL):	
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	655 mg/m3
NIOSH	Recommended exposure limit	100 ppm
	(REL):	
NIOSH	Recommended exposure limit	435 mg/m3
	(REL):	
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	655 mg/m3
NIOSH	Recommended exposure limit	100 ppm
	(REL):	
NIOSH	Recommended exposure limit	435 mg/m3
	(REL):	
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	655 mg/m3

METHYL ETHYL KETONE 78-93-3

ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	300 ppm
NIOSH	Recommended exposure limit	200 ppm
	(REL):	
NIOSH	Recommended exposure limit	590 mg/m3
	(REL):	
NIOSH	Short term exposure limit	300 ppm
NIOSH	Short term exposure limit	885 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	590 mg/m3

N-BUTYL ACETATE 123-86-4

ACGIH	time weighted average	150 ppm
ACGIH	Short term exposure limit	200 ppm
NIOSH	Recommended exposure limit	150 ppm
	(REL):	
NIOSH	Recommended exposure limit	710 mg/m3
	(REL):	
NIOSH	Short term exposure limit	200 ppm
NIOSH	Short term exposure limit	950 mg/m3
OSHA Z1	Permissible exposure limit	150 ppm
OSHA Z1	Permissible exposure limit	710 mg/m3
OSHA Z1A	time weighted average	150 ppm
OSHA Z1A	time weighted average	710 mg/m3
OSHA Z1A	Short term exposure limit	200 ppm
OSHA Z1A	Short term exposure limit	950 mg/m3
US CA OEL	Time Weighted Average (TWA)	150 ppm
	Permissible Exposure Limit (PEL):	
US CA OEL	Time Weighted Average (TWA)	710 mg/m3
	Permissible Exposure Limit (PEL):	
US CA OEL	Short term exposure limit	200 ppm
US CA OEL	Short term exposure limit	950 mg/m3

ISOPROPANOL 67-63-0

NIOSH	Recommended exposure limit	400 ppm
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SAFETY DATA SHEET

Page: 10

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

NIOSH	(REL): Recommended exposure limit	980 mg/m3
NIOSH	(REL): Short term exposure limit	500 ppm
NIOSH	Short term exposure limit	1,225 mg/m3
OSHA Z1	Permissible exposure limit	400 ppm
OSHA Z1	Permissible exposure limit	980 mg/m3
ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	400 ppm
PROPYL ACETATE NORMAL 109-60-4		
ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	250 ppm
NIOSH	Recommended exposure limit	200 ppm
NIOSH	(REL): Recommended exposure limit	840 mg/m3
NIOSH	(REL): Short term exposure limit	250 ppm
NIOSH	Short term exposure limit	1,050 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	840 mg/m3
OSHA Z1A	time weighted average	200 ppm
OSHA Z1A	time weighted average	840 mg/m3
OSHA Z1A	Short term exposure limit	250 ppm
OSHA Z1A	Short term exposure limit	1,050 mg/m3
US CA OEL	Time Weighted Average (TWA)	200 ppm
US CA OEL	Permissible Exposure Limit (PEL): Time Weighted Average (TWA)	840 mg/m3
US CA OEL	Permissible Exposure Limit (PEL): Short term exposure limit	250 ppm
US CA OEL	Short term exposure limit	1,050 mg/m3
ETHYL ACETATE 141-78-6		
ACGIH	time weighted average	400 ppm
NIOSH	Recommended exposure limit	400 ppm
NIOSH	(REL): Recommended exposure limit	1,400 mg/m3
NIOSH	(REL): Permissible exposure limit	400 ppm
OSHA Z1	Permissible exposure limit	1,400 mg/m3
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2		
ACGIH	time weighted average	20 ppm
NIOSH	Recommended exposure limit	5 ppm
NIOSH	(REL): Recommended exposure limit	24 mg/m3
NIOSH	(REL): Permissible exposure limit	50 ppm
OSHA Z1	Permissible exposure limit	240 mg/m3
TRIMETHYLBENZENE 1,2,4- 95-63-6		
NIOSH	Recommended exposure limit	25 ppm

SAFETY DATA SHEET

Page: 11

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

NIOSH	(REL): Recommended exposure limit	125 mg/m3
ACGIH	(REL): time weighted average	25 ppm
OSHA Z1A	time weighted average	25 ppm
OSHA Z1A	time weighted average	125 mg/m3
US CA OEL	Time Weighted Average (TWA)	25 ppm
US CA OEL	Permissible Exposure Limit (PEL): Time Weighted Average (TWA)	125 mg/m3
US CA OEL	Permissible Exposure Limit (PEL):	
<hr/> METHYL NORMAL AMYL KETONE 110-43-0 <hr/>		
ACGIH	time weighted average	50 ppm
NIOSH	Recommended exposure limit	100 ppm
NIOSH	(REL): Recommended exposure limit	465 mg/m3
NIOSH	(REL): Recommended exposure limit	465 mg/m3
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	465 mg/m3
<hr/> ISOBUTANOL 78-83-1 <hr/>		
ACGIH	time weighted average	50 ppm
NIOSH	Recommended exposure limit	50 ppm
NIOSH	(REL): Recommended exposure limit	150 mg/m3
NIOSH	(REL): Recommended exposure limit	150 mg/m3
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	300 mg/m3
OSHA Z1A	time weighted average	50 ppm
OSHA Z1A	time weighted average	150 mg/m3
US CA OEL	Time Weighted Average (TWA)	50 ppm
US CA OEL	Permissible Exposure Limit (PEL): Time Weighted Average (TWA)	150 mg/m3
US CA OEL	Permissible Exposure Limit (PEL):	
<hr/> BUTANOL NORMAL 71-36-3 <hr/>		
ACGIH	time weighted average	20 ppm
NIOSH	Ceiling Limit Value and Time	50 ppm
NIOSH	Period (if specified): Ceiling Limit Value and Time	150 mg/m3
NIOSH	Period (if specified): Ceiling Limit Value and Time	150 mg/m3
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	300 mg/m3
OSHA Z1A	Ceiling Limit Value:	50 ppm
OSHA Z1A	Ceiling Limit Value:	150 mg/m3
US CA OEL	Ceiling Limit Value:	50 ppm
US CA OEL	Ceiling Limit Value:	150 mg/m3

General Advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should

SAFETY DATA SHEET

Page: 12

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

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

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. Maintain eye wash station near work area.

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.

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
Form	No data
Colour	Colorless to water white to pale yellow
Odour	No data
Boiling point/range	No data
pH	No data
Flash point	(>) -4 °F / -20 °C, Seta closed cup
Evaporation rate	No data
Explosion limits	No data
Vapour pressure	No data

SAFETY DATA SHEET

Page: 13

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

Vapour density	No data
Density	No data
	No data
Solubility	No data
Partition coefficient (n-octanol/water)	No data
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to Avoid

Avoid heat, open flame, and prolonged storage at elevated temperatures.

Incompatible Products

acids, alkali metals, alkalis, aluminum, amines, zinc, aldehydes, Ethylene oxide, chlorinated hydrocarbons, copper, copper alloys, halogens, isocyanates, lead, hypochlorites, organic absorbents such as sawdust, peat moss, ground corn cobs, etc., reducing agents, salts of strong bases, sodium, strong bases, strong oxidizing agents, Do not use with aluminum equipment at temperatures above 120 degrees F.

Hazardous Decomposition Products

carbon dioxide and carbon monoxide, Hydrocarbons, aldehydes, ketones, organic acids, nitrogen oxides (NO_x), toxic fumes

Hazardous Reactions

Product will not undergo hazardous polymerization.

Thermal Decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity

ACETONE LD 50 Rat: 5,800 mg/kg

PROPANOL, NORMAL LD 50 Rat: 1,870 mg/kg

SAFETY DATA SHEET

Page: 14

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

METHANOL	LD 50 Rat: 5,045 mg/kg
TOLUENE	LD 50 Rat: 2,600 - 7,500 mg/kg
ETHANOL	LD 50 Rat: 7,060 mg/kg
XYLENE	LD 50 Rat: 4,300 mg/kg
N-BUTYL ACETATE	LD 50 Rat: 10.8 g/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	LD 50 Rat: 8,000 mg/kg
METHYL ETHYL KETONE	LD 50 Mouse: 670 mg/kg LD 50 Rat: 2,300 - 3,500 mg/kg
ISOPROPANOL	LD 50 Rat: 5,045 mg/kg
PROPYL ACETATE NORMAL	LD 50 Rat: 9,370 mg/kg
ETHYL ACETATE	LD 50 Rat: 5,600 mg/kg
ETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Guinea pig: 1,200 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rat: 5,600 mg/kg
DIETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Rat: 6,560 mg/kg
TRIMETHYLBENZENE 1,2,4-	LD 50 Rat: 6 g/kg
METHYL NORMAL AMYL KETONE	LD 50 Rat: 1,670 mg/kg
ISOBUTANOL	LD 50 Rat: 2,460 mg/kg
BUTANOL NORMAL	LD 50 Rat: 790 mg/kg

Acute Inhalation Toxicity

ACETONE	LC 50 Rat: 16000 ppm, 4 h
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SAFETY DATA SHEET

Page: 15

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

PROPANOL, NORMAL	LC 50 Rat: 4000 ppm, 4 h
METHANOL	LC 50 Rat: 64000 ppm, 4 h
TOLUENE	LC 50 Rat: 8000 ppm, 4 h
ETHANOL	LC 50 Rat: 20000 ppm, 10 h
N-BUTYL ACETATE	LC 50 Rat: 2000 ppm, 4 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	LC 50 Rat: 3400 ppm, 4 h
METHYL ETHYL KETONE	LC 50 Rat: 11,700 mg/l, 4 h
ISOPROPANOL	LC 50 Rat: 16000 ppm, 4 h
PROPYL ACETATE NORMAL	LC 50 Rat: 8000 ppm, 4 h
ETHYL ACETATE	LC 50 Rat: 16000 ppm, 6 h
ETHYLENE GLYCOL MONOBUTYL ETHER	LC 50 Guinea pig: 633 ppm, 1 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LC 50 Rat: 10,200 mg/m3, 4 h
TRIMETHYLBENZENE 1,2,4-	LC 50 Rat: 18 g/m3, 4 h
METHYL NORMAL AMYL KETONE	LC Lo Rat: 4000 ppm, 4 h
ISOBUTANOL	LC 50 Rat: 8000 ppm, 4 h

Acute Dermal Toxicity

SAFETY DATA SHEET

Page: 16

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

ACETONE	LD 50 Rabbit: 20,000 mg/kg
PROPANOL, NORMAL	LD 50 Rabbit: 5,040 mg/kg
METHANOL	LD 50 Rabbit: 12,800 mg/kg
TOLUENE	LD 50 Rabbit: 12,124 mg/kg
ETHANOL	LD Lo Rabbit: 20 g/kg
XYLENE	LD 50 Rabbit: 2,000 mg/kg
N-BUTYL ACETATE	LD 50 Rabbit: 17,600 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	LD 50 Rat: 4,000 mg/kg
METHYL ETHYL KETONE	LD 50 Rabbit: 5 g/kg
ISOPROPANOL	LD 50 Rabbit: 5,030 - 7,900 mg/kg
ETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Guinea pig: 2,000 mg/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rabbit: 4,000 mg/kg
DIETHYLENE GLYCOL MONOBUTYL ETHER	LD 50 Rabbit: 2,700 mg/kg
METHYL NORMAL AMYL KETONE	LD 50 Rabbit: 12,600 mg/kg
ISOBUTANOL	LD 50 Rabbit: 3,392 mg/kg
BUTANOL NORMAL	LD 50 Rabbit: 3,400 mg/kg

SAFETY DATA SHEET

Page: 17

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental Fate and Pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

IMDG:

UN1993, FLAMMABLE LIQUID, N.O.S. (ACETONE, METHYL ETHYL KETONE) 3, II

IATA_P:

UN1993, Flammable liquid, n.o.s. (ACETONE, METHYL ETHYL KETONE) 3, II

IATA_C:

UN1993, Flammable liquid, n.o.s. (ACETONE, METHYL ETHYL KETONE) 3, II

CFR_ROAD:

UN1993, Flammable liquids, n.o.s. (ACETONE, METHYL ETHYL KETONE) 3, II

CFR_RAIL:

UN1993, Flammable liquids, n.o.s. (ACETONE, METHYL ETHYL KETONE) 3, II

CFR_INWTR:

UN1993, Flammable liquids, n.o.s. (ACETONE, METHYL ETHYL KETONE) 3, II

IMDG_INWTR:

SAFETY DATA SHEET

Page: 19

Revision Date: 10/10/2007

Print Date: 4/24/2008

MSDS Number: 000000079704

Version: 1.0

PRO Gun Cleaner GC-5

TRIMETHYLBENZENE 1,2,4-	95-63-6	1.944%
BUTANOL NORMAL	71-36-3	1.8%

	Health	Flammability	Reactivity	Other
HMIS	2	3	0	
NFPA	2	3	0	

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.