SAFETY DATA SHEET

Issue Date 03-07-2017 **Revision Date** 06-23-2017 **Version** 1

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

Product identifier

Product Name: GDI EMISSIONS CONTROL SYSTEM CLEANER

Other means of identification

Common Name: 4200
UN/ID No UN1993 (Domestic)
Synonyms None
Product Categories Automotive Solvent Based Cleaner

Recommended use of the chemical and restrictions on use

Sale and Use Restrictions Not applicable
Recommended Use Restricted to professional users.
Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address
ACEL, LLC.
6826 Hill Park Dr. Suite #100
Lorton, VA 22079

Emergency telephone number

Company Phone Number ACEL, LLC. (888) 801-2507
Emergency Telephone CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Specific target organ toxicity (single exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 2

Label elements

Emergency Overview

Danger

Hazard statements
Toxic if swallowed
Toxic by skin contact
Toxic if inhaled
Causes damage to organs
May be fatal if swallowed and enters airways
Highly flammable liquid and vapor

Appearance Two phase, Organic solvent based solution **Physical state** Liquid **Odor** Strong Alcohol Odor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment (if metal)
Use explosion-proof electrical/ventilating/lighting equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection
Keep cool

Precautionary Statements - Response
Specific treatment (see response statements below and Section 4 of the Safety Data Sheet)
If exposed: Call a POISON CONTROL CENTER or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CONTROL CENTER or doctor/physician
IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician
Do not induce vomiting
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in a dry place

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other information
• Causes mild skin irritation
• Toxic to aquatic life with long lasting effects
• DANGER! Poison. Vapor harmful. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. If swallowed, may be aspirated and cause lung damage, call physician immediately. May affect liver, kidneys, blood, or central nervous system. Causes irritation to skin, eyes and respiratory tract. Avoid eye contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %	Trade Secret
Solvent Naphtha Heavy Aliphatic	64742-96-7	0-55	*
Hydrotreated Light Petroleum	64742-47-8	0-55	*

Distillates			
Methanol	67-56-1	40-55	*
Acetone	67-64-1	1-3	*
2-Butoxyethanol	111-76-2	1-3	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice IF exposed:: Immediately call a POISON CONTROL CENTER or doctor/physician. Show this safety data sheet to the doctor in attendance.

Skin contact Take off all contaminated clothing immediately. Rinse skin with water/shower at least fifteen minutes. Wash contaminated clothing before reuse. Call a physician or Poison Control Center immediately.

Inhalation If inhaled. Keep at rest position comfortable for breathing. Call a physician or Poison Control Center. Remove to fresh air.

Eye contact Flush immediately with large amount of water for at least 15 minutes. Consult a physician.

Ingestion Do not induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious). Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with head facing down. Call for emergency services immediately.

Notes to Physician This product contains Methanol: Methanol can cause intoxication and central nervous system depression and metabolizes to formic acid and formaldehyde (metabolic acidosis), causing 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 >= 20 micrograms/dl. Methanol is effectively removed by hemodialysis. Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours. Exposure to high concentrations of similar materials has been associated with cardiac arrhythmias and cardiac arrest.

Most important symptoms and effects, both acute and delayed

Symptoms Coughing and/ or wheezing; Stomach and intestinal upset (diarrhea, nausea, vomiting); Drowsiness, Dizziness, Blindness, Metabolic acidosis, Shortness of breath; Unconsciousness, Coma.

Indication of any immediate medical attention and special treatment needed

Self-protection of the first aider Avoid breathing vapors or mists. Avoid contact with skin.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
Use dry chemical, CO2, water spray (fog) or alcohol resistant foam.

Small Fire Dry chemical or CO2.

Large Fire Water spray or fog; Alcohol resistant foam.

Explosive properties: Vapors may form explosive mixture with air. May form explosive peroxides. Risk of explosion if heated under confinement.

Specific hazards arising from the chemical
Highly flammable liquid and vapor. Vapors may cause flash fire or explosion. Flammable/toxic gases may accumulate in confined areas (basements, tanks, hopper/tank cars etc.). Keep product and empty container away from heat and sources of ignition. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to areas away from work site before igniting/flashing back to vapor source. This product may form explosive peroxides, especially in the presence of oxidizing agents. Runoff may create fire or explosion hazard.

Hazardous combustion products Carbon monoxide, Carbon dioxide (CO2), Aldehydes, Ketones, Organic acids.

Specific methods:
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge Yes. May be ignited by heat, sparks or flames.

Special firefighting procedures:
FLAMMABLE! Keep away from heat, spark, flame and all other sources of ignition. Use with adequate ventilation. No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. Keep exposed containers cool with water spray to prevent rupture. Water from fogging nozzles may be used to cool closed containers to prevent build-up of pressure if exposed to extreme temperatures. Do not use solid stream of water (water jet), as this will spread the fire. Wear full protective equipment including self contained breathing apparatus in a fire involving this material.

Component	ACGIH - test
Methanol 67-56-1 (40-55)	15
Acetone 67-64-1 (1-3)	25
2-Butoxyethanol 111-76-2 (1-3)	200

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Keep people away from and upwind of spill/leak. Remove all sources of ignition. Ensure adequate ventilation. Pay attention to flashback. Use personal protective equipment. See Section 8 for information on appropriate personal protective equipment. Use spark-proof tools and explosion-proof equipment.

For emergency responders Use personal protection recommended in Section 8. Ventilate the area. Remove all sources of ignition. Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. Pay attention to flashback.

Environmental precautions

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for Containment Remove all sources of ignition. Ventilate the area. Prevent further leakage or spillage if safe to do so. Use non-sparking tools. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for clean-up: Clean-up methods - small spillage: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Clean-up methods - large spillage: Large spills present a vapor explosion and liquid fire hazard; evacuate area and ensure response by personnel trained and equipped to respond to flammable material incident or off-site emergency responders or fire department.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Do not get in eyes, on skin, or on clothing. Keep product and empty container away from heat and sources of ignition. Avoid breathing vapors or mists. Static ignition hazard can result from handling and use. Electrically bond and ground all metal containers, personnel and equipment before transfer or use of material. Keep away from any incompatible materials (See Section 10). Protect against physical damage. Store between 40 and 120 °F.

Conditions for safe storage, including any incompatibilities

Technical measures/precautions: Mechanical ventilation required if used indoors on a continuous basis. Eye wash and safety shower should be easily accessible.

Materials to avoid: Oxidizing agents, Acid chlorides, Acid anhydrides, Reducing agents, Alkali metals, Acids and bases; Phosphorus oxychloride, Alkali metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Components	ACGIH TLV	OSHA Exposure Limits:	NIOSH IDLH
Solvent Naphtha Heavy Aliphatic 64742-96-7	-	Not established	-
Hydrotreated Light Petroleum Distillates 64742-47-8	TWA: 200 ppm	TWA: 500 ppm	-
Methanol 67-56-1	S* STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 260 mg/m^3	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m^3 STEL: 250 ppm STEL: 325 mg/m^3
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	TWA: 1000 ppm TWA: 2400 mg/m^3 TWA: 750 ppm TWA: 1800 mg/m^3	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m^3
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m^3 TWA: 25 ppm TWA: 120 mg/m^3	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m^3

Appropriate engineering controls

Engineering measures: Mechanical ventilation required if used indoors on a continuous basis. Eye wash and safety shower should be easily accessible.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles); Face protection shield.

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 chemical resistant gloves (consult your safety equipment supplier). Additional body garments such as chemically resistant suit, boots and face shield should be used based upon task being performed.

Respiratory protection Respiratory protection is not required under normal conditions of use. If workplace exposure limit(s) of product or any component is exceeded, a NIOSH-approved air purifying respirator used in accordance with the OSHA Respiratory Protection Standard [29 CFR 1910.134] is recommended in the absence of adequate ventilation during normal use (see your industrial hygienist). Emergency response/release cleanup may require additional respiratory

protection, including SCBAs. Administrative or engineering controls should be implemented to reduce exposure.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Use personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid		
Appearance	Two phase, Organic solvent based solution	**Odor**	Strong Alcohol Odor
Color	Clear, Colorless	**Odor threshold**	No information available

Property	**Values**	**Remarks • Method**
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	> 56 °C / 133 °F	(Lowest liquid component)
Flash point	-18 °C / 0 °F	(Lowest liquid component)
Evaporation rate	Slower than ether	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		(based on components)
Upper flammability limit	10%	
Lower flammability limit	1.2%	
Vapor pressure	2.45 kPa	@ 20 °C (Based on acetone)
Vapor density	Heavier than air	
Specific Gravity	0.80	
Water solubility	Partially soluble	
Solubility in other solvents	No Data Available	
Partition coefficient	No Data Available	
Autoignition temperature	455 °C / 851 °F	(Lowest liquid component)
Decomposition temperature	No Data Available	
Kinematic viscosity	No information available	
Dynamic viscosity	No Data Available	
Explosive properties	No Data Available	
Oxidizing properties	No Data Available	

Other information

Softening point	No Data Available
Molecular weight	No Data Available
VOC Content (%)	
VOC Content (%)	47.8 Contains VOC exempt solvents
Density	0.80 g/cc
Bulk density	No Data Available

10. STABILITY AND REACTIVITY

Reactivity

Reactivity Stable under normal conditions.

Chemical stability

Possibility of Hazardous Reactions	None under normal processing
Hazardous polymerization	Hazardous polymerization does not occur.

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials

Materials to avoid: Oxidizing agents, Acid chlorides, Acid anhydrides, Reducing agents, Alkali metals, Acids and bases; Phosphorus oxychloride, Alkali metals.

Hazardous Decomposition Products

Hazardous Decomposition Products Carbon monoxide, Carbon dioxide (CO2), Aldehydes, Ketones, Organic acids.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information Toxic if inhaled. Toxic in contact with skin and if swallowed. Causes damage to organs. May be fatal if swallowed and enters airways DANGER! Poison. Vapor harmful. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. If swallowed, may be aspirated and cause lung damage, call physician immediately. May affect liver, kidneys, blood, or central nervous system. Causes irritation to skin, eyes and respiratory tract. Avoid eye contact.

Inhalation Toxic by inhalation. Avoid breathing vapors or mists.

Eye contact Inhalation, ingestion, or skin absorption of methanol can cause blindness.

Skin Contact Toxic by skin contact. May be absorbed through the skin in harmful amounts. Avoid contact with skin and clothing.

Ingestion MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.

Components	Oral LD50	Dermal LD50	Inhalation LC50
Solvent Naphtha Heavy Aliphatic 64742-96-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
Hydrotreated Light Petroleum Distillates 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Methanol 67-56-1	= 6200 mg/kg (Rat)	=17,100 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
Acetone 67-64-1	=5800 mg/kg (Rat)	=7426 mg/kg (Guinea pig)	= 50100 mg/m³ (Rat) 8 h
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Not expected to cause skin sensitization. Not classified as a respiratory sensitizer.

Mutagenic effects: No data available to indicate product or any components present at or greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Category 3: Not classifiable as carcinogenic.

Components	ACGIH	IARC	NTP	OSHA
2-Butoxyethanol 111-76-2		Group 3		

Reproductive toxicity 2-Butoxyethanol (CAS#111-76-2): Experiments have shown reproductive toxicity effects on laboratory animals.

STOT - single exposure This product is classified as STOT single exposure Category 1. Causes damage to organs: Kidney, Liver, Eyes, Skin, Central nervous system. Causes dizziness or drowsiness.

STOT - repeated exposure Not classified.

Chronic toxicity Experiments have shown reproductive toxicity effects on laboratory animals. Repeated or prolonged exposure may cause central nervous system damage. Prolonged or repeated contact can cause moderate irritation, defatting and dermatitis. May cause adverse liver

	effects. May cause adverse kidney effects. May cause adverse effects on the bone marrow and blood-forming system.
Subchronic toxicity	No information available.
Target Organ Effects	Kidney, Liver, Heart, Central nervous system, Eyes, Testes.
Neurological effects	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system.
Other adverse effects	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	205 mg/kg
ATEmix (dermal)	482 mg/kg
ATEmix (inhalation-dust/mist)	1.1 mg/l
ATEmix (inhalation-vapor)	5 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chronic Aquatic Toxicity: Toxic to aquatic life with long lasting effects.

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Components	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrotreated Light Petroleum Distillates 64742-47-8		45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
Methanol 67-56-1		28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through		
Acetone 67-64-1		4.74 - 6.33: 96 h Oncorhynchus mykiss mL/L LC50 6210 - 8120: 96 h Pimephales promelas mg/L LC50 static 8300: 96 h Lepomis macrochirus mg/L LC50		10294 - 17704: 48 h Daphnia magna mg/L EC50 Static 12600 - 12700: 48 h Daphnia magna mg/L EC50
2-Butoxyethanol 111-76-2		1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50		1000: 48 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation

Bioaccumulative potential.

Mobility
If product enters soil, one or more constituents will be mobile and may contaminate ground water.

Components	Partition coefficient
Methanol 67-56-1	-0.77
Acetone 67-64-1	-0.24
2-Butoxyethanol 111-76-2	0.83

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Do not reuse container. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Limited quantity (LQ) <1 Liter

DOT

UN/ID No	UN1993
Proper Shipping Name:	Flammable liquids, n.o.s. (Acetone, Methanol)
Hazard Class	3
Packing Group:	II
Emergency Response Guide Number	128

IATA

UN/ID No	UN1992
Proper Shipping Name:	Flammable liquids, Toxic, n.o.s. (Acetone, Methanol)
Hazard Class	3
Subsidiary hazard class	6.1
Packing Group:	II

IMDG

UN/ID No	UN1992
Proper Shipping Name:	Flammable liquids, Toxic, n.o.s. (Acetone, Methanol)
Hazard Class	3
Subsidiary hazard class	6.1
Packing Group:	II

15. REGULATORY INFORMATION

International Inventories

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Components	CAS Number	Weight %	SARA 313 - Threshold Values %
Methanol 67-56-1	67-56-1	40-55	1.0 % de minimis concentration
2-Butoxyethanol 111-76-2	111-76-2	1-3	1.0 % de minimis concentration

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Components	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methanol 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Acetone 67-64-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

State Regulations (RTK)

California Proposition 65
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Rating
Health hazards 2
Flammability 3
Instability 0
Physical and Chemical Properties -
HMIS Rating
Health hazards 2*
Flammability 3
Physical hazards 0
Personal protection D

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Prepared by Environmental Health and Safety Department
Issue Date 03-07-2017
Revision Date 06-23-2017
Revision Note

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet