# UTC Aerospace Systems

## **SAFETY DATA SHEET**

## 1. Identification

Product identifier KE7804

Other means of identification

**Synonyms** Goodrich Kit Components: 74-451-117; 74-451-117-1; 74-451-117-2; 74-451-142; Goodrich Kits:

74-451-K

Recommended use Adhesive.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

**Supplier** 

Company name Goodrich Corporation

UTC Aerospace Systems Sensors and Integrated Systems (Formerly De-icing

and Specialty Systems)

Address 1555 Corporate Woods Parkway

Uniontown, Ohio 44685

US

E-mail Terry.Sluss@utas.utc.com

Contact name EH&S Manager
Telephone number (330)374-4011
Emergency telephone (800)424-9300

number

## 2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 2

Health hazards Acute toxicity, oral Category 4

Acute toxicity, dermal

Acute toxicity, inhalation

Category 4

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2

Sensitization, respiratory

Category 1

Sensitization, skin

Category 1

Reproductive toxicity

Category 1B

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated

peated Category 2 (Central Nervous System)

exposure

Aspiration hazard Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

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 SDS US

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#### **Hazard statement**

Highly flammable liquid and vapor. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause allergic or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs (Central Nervous System) through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

# Precautionary statement

#### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling.

#### Response

In case of fire: Use appropriate media to extinguish. If swallowed: Immediately call a poison center/doctor. Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

**Supplemental information** 

None.

## 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	CAS number	%
Tetrahydrofuran	109-99-9	25 - 30
Cyclohexanone	108-94-1	15 - 20
Methyl ethyl ketone	78-93-3	15 - 20
Toluene	108-88-3	15 - 20
1-Methoxy-2-propanol	107-98-2	5 - 10
Carbon black	1333-86-4	1 - 5
Aromatic polycarbodiimide	Trade Secret	< 0.3
2-Methoxy-1-propanol	1589-47-5	< 0.2
Xylene	1330-20-7	< 0.2

## **Composition comments**

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### 4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a poison center or doctor/physician if you feel unwell. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. If skin irritation or an

allergic skin reaction develops, get medical attention.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

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#### Ingestion

Most important symptoms/effects, acute and delayed

Indication of immediate medical attention and special treatment needed

**General information** 

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. May cause allergic respiratory reaction. Prolonged exposure may cause chronic effects.

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Take off all contaminated clothing immediately. If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

## 5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing media

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

Fire fighting equipment/instructions

Specific methods

General fire hazards

Water spray. Foam. Dry chemical. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Container may rupture from gas generation in a fire situation. The fire could easily be spread by the use of water in an area where the water could not be contained. Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed such as: Carbon monoxide and carbon dioxide.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes. Stop leak if you can do so without risk. Move containers from fire area if you can do so without risk. USE WATER WITH CAUTION. Use water to keep fire exposed containers cool and disperse vapors. Prevent buildup of vapors or gases to explosive concentrations.

Some of these materials, if spilled, may evaporate leaving a flammable residue. Cool containers exposed to flames with water until well after the fire is out. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Highly flammable liquid and vapor.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Methods and materials for

containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

#### **Environmental precautions**

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## 7. Handling and storage

## Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

## Conditions for safe storage. including any incompatibilities

Store locked up. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

## Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

1333-86-4) Coyclohexanone (CAS   PEL   200 mg/m3   50 ppm   50 ppm   200 ppm	Components	Туре	Value	
Cyclobexanone (CAS 108-94-1)       PEL       200 mg/m3         108-94-1)       50 ppm         Methyl ethyl ketone (CAS 78-93-3)       PEL       590 mg/m3         Tetrahydrofuran (CAS 109-99-9)       200 ppm         Xylene (CAS 1330-20-7)       PEL       435 mg/m3 100 ppm         US. OSHA Table Z-2 (29 CFR 1910.1000)       Value         Components       Type       Value         Toluene (CAS 108-88-3)       Ceilling 300 ppm 100 ppm         US. ACGIH Threshold Limit Values       TWA 200 ppm         US. ACGIH Threshold Limit Values         Components       Type       Value       Form         In-Methoxy-2-propanol (CAS 100 ppm         107-98-2)       TWA 50 ppm         Carbon black (CAS 1330-86-4)       TWA 3.5 mg/m3 Inhalable fraction.         1333-86-4)       TWA 20 ppm         Cyclohexanone (CAS 518-84-1)       TWA 200 ppm         Tetrahydrofuran (CAS 518-83-3)       TWA 50 ppm         Toluene (CAS 108-88-3)       TWA 50 ppm         Toluene (CAS 108-88-3)       TWA 20 ppm         Xylene (CAS 1330-20-7)       STEL 150 ppm	Carbon black (CAS 1333-86-4)	PEL	3.5 mg/m3	
S0 ppm   S90 mg/m3   S90 mg/	Cyclohexanone (CAS	PEL	200 mg/m3	
78-93-3)  Tetrahydrofuran (CAS	,		50 ppm	
Tetrahydrofuran (CAS 109-99-9)	Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	
109-99-9)			200 ppm	
Value   CAS 1330-20-7   PEL   435 mg/m3   100 ppm   10	Tetrahydrofuran (CAS 109-99-9)	PEL	590 mg/m3	
US. OSHA Table Z-2 (29 CFR 1910.1000)  Components Type Value  Toluene (CAS 108-88-3) Ceiling 300 ppm 200 ppm  TWA 200 ppm  US. ACGIH Threshold Limit Values  Components Type Value Form  1-Methoxy-2-propanol (CAS STEL 100 ppm 107-98-2) TWA 50 ppm 108-94-1) TWA 3.5 mg/m3 Inhalable fraction.  Carbon black (CAS TWA 3.5 mg/m3 Inhalable fraction.  TWA 20 ppm 108-94-1) TWA 20 ppm 108-94-1) TWA 20 ppm 108-94-1) TWA 200 ppm  Tetrahydrofuran (CAS STEL 100 ppm 109-99-9) TWA 200 ppm 109-99-9) TWA 200 ppm 109-99-90				
Components   Type   Value	Xylene (CAS 1330-20-7)	PEL		
Components         Type         Value           Toluene (CAS 108-88-3)         Ceiling TWA         300 ppm           US. ACGIH Threshold Limit Values         Components         Type         Value         Form           1-Methoxy-2-propanol (CAS 107-98-2)         STEL         100 ppm           1-Methoxy-2-propanol (CAS 1033-86-4)         TWA         50 ppm           Carbon black (CAS 108-84-4)         STEL         50 ppm           Cyclohexanone (CAS 108-94-1)         TWA         20 ppm           Methyl ethyl ketone (CAS 5TEL 300 ppm         300 ppm           Tetrahydrofuran (CAS 5TEL 100 ppm         100 ppm           Tetrahydrofuran (CAS 108-88-3)         TWA 50 ppm           Toluene (CAS 108-88-3)         TWA 20 ppm           Toluene (CAS 1330-20-7)         STEL 150 ppm			100 ppm	
Toluene (CAS 108-88-3)   Ceiling	US. OSHA Table Z-2 (29 CFR 1910.	.1000)		
TWA   200 ppm	Components	Туре	Value	
Components   Type   Value   Form	Toluene (CAS 108-88-3)	Ceiling	300 ppm	
Components         Type         Value         Form           1-Methoxy-2-propanol (CAS         STEL         100 ppm           107-98-2)         TWA         50 ppm           Carbon black (CAS         TWA         3.5 mg/m3         Inhalable fraction.           1333-86-4)         STEL         50 ppm           Cyclohexanone (CAS         STEL         50 ppm           108-94-1)         TWA         20 ppm           Methyl ethyl ketone (CAS         STEL         300 ppm           78-93-3)         TWA         200 ppm           Tetrahydrofuran (CAS         STEL         100 ppm           109-99-9)         TWA         50 ppm           Toluene (CAS 108-88-3)         TWA         20 ppm           Xylene (CAS 1330-20-7)         STEL         150 ppm		TWA	200 ppm	
1-Methoxy-2-propanol (CAS	US. ACGIH Threshold Limit Values	3		
107-98-2)  TWA 50 ppm  Carbon black (CAS TWA 3.5 mg/m3 Inhalable fraction.  1333-86-4)  Cyclohexanone (CAS STEL 50 ppm  108-94-1)  TWA 20 ppm  Methyl ethyl ketone (CAS STEL 300 ppm  78-93-3)  TWA 200 ppm  Tetrahydrofuran (CAS STEL 100 ppm  Tetrahydrofuran (CAS 5TEL 100 ppm  Toluene (CAS 108-88-3)  TWA 50 ppm  Toluene (CAS 1330-20-7)  STEL 150 ppm	Components	Туре	Value	Form
Carbon black (CAS       TWA       3.5 mg/m3       Inhalable fraction.         1333-86-4)       Cyclohexanone (CAS       STEL       50 ppm         108-94-1)       TWA       20 ppm         Methyl ethyl ketone (CAS       STEL       300 ppm         78-93-3)       TWA       200 ppm         Tetrahydrofuran (CAS       STEL       100 ppm         109-99-9)       TWA       50 ppm         Toluene (CAS 108-88-3)       TWA       20 ppm         Xylene (CAS 1330-20-7)       STEL       150 ppm	1-Methoxy-2-propanol (CAS 107-98-2)	STEL	100 ppm	
1333-86-4) Cyclohexanone (CAS STEL 50 ppm  108-94-1) TWA 20 ppm  Methyl ethyl ketone (CAS STEL 300 ppm  78-93-3) TWA 200 ppm  Tetrahydrofuran (CAS STEL 100 ppm  Tetrahydrofuran (CAS 5TEL 50 ppm  TWA 50 ppm  Toluene (CAS 108-88-3) TWA 20 ppm  TWA 50 ppm  TWA 50 ppm  Toluene (CAS 1330-20-7) STEL 150 ppm		TWA	50 ppm	
108-94-1)  TWA 20 ppm  Methyl ethyl ketone (CAS STEL 300 ppm  78-93-3)  TWA 200 ppm  Tetrahydrofuran (CAS STEL 100 ppm  Tetrahydrofuran (CAS 50 ppm  TWA 50 ppm  Toluene (CAS 108-88-3)  TWA 20 ppm  TWA 50 ppm  TWA 50 ppm  Tylene (CAS 1330-20-7)  STEL 150 ppm	Carbon black (CAS 1333-86-4)	TWA	3.5 mg/m3	Inhalable fraction.
TWA 20 ppm  Methyl ethyl ketone (CAS STEL 300 ppm  78-93-3)  TWA 200 ppm  Tetrahydrofuran (CAS STEL 100 ppm  Tetrahydrofuran (CAS 50 ppm  TWA 50 ppm  Toluene (CAS 108-88-3)  TWA 20 ppm  TWA 50 ppm  Toluene (CAS 1330-20-7)  STEL 150 ppm	Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
78-93-3)  TWA 200 ppm  Tetrahydrofuran (CAS STEL 100 ppm  109-99-9)  TWA 50 ppm  Toluene (CAS 108-88-3)  TWA 20 ppm  TWA 20 ppm  Toluene (CAS 1330-20-7)  STEL 150 ppm	,	TWA	20 ppm	
Tetrahydrofuran (CAS       STEL       100 ppm         109-99-9)       TWA       50 ppm         Toluene (CAS 108-88-3)       TWA       20 ppm         Xylene (CAS 1330-20-7)       STEL       150 ppm	Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
109-99-9)  TWA  Toluene (CAS 108-88-3)  TWA  TOWA  20 ppm  Xylene (CAS 1330-20-7)  STEL  150 ppm	,	TWA	200 ppm	
TWA 50 ppm Toluene (CAS 108-88-3) TWA 20 ppm Xylene (CAS 1330-20-7) STEL 150 ppm	Tetrahydrofuran (CAS 109-99-9)	STEL		
Xylene (CAS 1330-20-7) STEL 150 ppm	·	TWA	50 ppm	
	Toluene (CAS 108-88-3)	TWA	20 ppm	
TWA 100 ppm	Xylene (CAS 1330-20-7)		150 ppm	
		TWA	100 ppm	

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## **US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Туре	Value	
1-Methoxy-2-propanol (CAS 107-98-2)	STEL	540 mg/m3	
		150 ppm	
	TWA	360 mg/m3	
		100 ppm	
Carbon black (CAS 1333-86-4)	TWA	3.5 mg/m3	
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m3	
,		25 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	885 mg/m3	
ŕ		300 ppm	
	TWA	590 mg/m3	
		200 ppm	
Tetrahydrofuran (CAS 109-99-9)	STEL	735 mg/m3	
		250 ppm	
	TWA	590 mg/m3	
		200 ppm	
Toluene (CAS 108-88-3)	STEL	560 mg/m3	
		150 ppm	
	TWA	375 mg/m3	
		100 ppm	
Xylene (CAS 1330-20-7)	STEL	655 mg/m3	
		150 ppm	
	TWA	435 mg/m3	
		100 ppm	

## **Biological limit values**

## **ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexan ediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*
Tetrahydrofuran (CAS 109-99-9)	2 mg/l	Tetrahydrofura n	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

 $<sup>\</sup>ensuremath{^*}$  - For sampling details, please see the source document.

## **Exposure guidelines**

## US - California OELs: Skin designation

1-Methoxy-2-propanol (CAS 107-98-2) Cyclohexanone (CAS 108-94-1) Toluene (CAS 108-88-3)

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Toluene (CAS 108-88-3)

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin. Can be absorbed through the skin. Can be absorbed through the skin.

Skin designation applies. Skin designation applies.

Can be absorbed through the skin.

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an be absorbed through the skin.

## **US ACGIH Threshold Limit Values: Skin designation**

Cyclohexanone (CAS 108-94-1)

Tetrahydrofuran (CAS 109-99-9)

Can be absorbed through the skin.

Can be absorbed through the skin.

#### **US. NIOSH: Pocket Guide to Chemical Hazards**

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Appropriate engineering

controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.Other Wear appropriate chemical resistant clothing.

Respiratory protection When engineering controls are not sufficient to lower exposure levels below the applicable

exposure limit, use a NIOSH approved respirator.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

Appearance Black liquid.
Physical state Liquid.
Form Liquid.
Color Black.

Odor threshold Not available.

PH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling

range

Flash point

**Evaporation rate** 

150.8 - 312.8 °F (66 - 156 °C)

6.8 °F (-14.0 °C) Closed Cup Slower than diethyl ether.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Heavier than air (Air=1).

Relative density 0.9 (68 °F (20 °C))

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

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Other information

Percent volatile 90 % v/v

VOC (Weight %) 6.64 lb/gal less water & NPRS\*, 797 g/l less water, 69.49 lb/gal solids, 8339 g/l solids (\* NPRS –

Negligibly Photochemically Reactive Materials).

10. Stability and reactivity

**Reactivity**The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

Possibility of hazardous

reactions

Will not occur.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Strong acids. Strong alkalis. Ammonia. Amines. Isocyanates. Caustics.

Hazardous decomposition

products

Carbon oxides.

## 11. Toxicological information

## Information on likely routes of exposure

Inhalation Harmful if inhaled. May cause respiratory irritation. May cause drowsiness and dizziness.

Headache. Nausea, vomiting.

**Skin contact** Harmful in contact with skin. Causes skin irritation.

**Eye contact** Causes serious eye irritation.

**Ingestion** Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and

diarrhea. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause

a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause allergic

respiratory reaction. May cause an allergic skin reaction.

## Information on toxicological effects

**Acute toxicity** May be fatal if swallowed and enters airways. Harmful if inhaled. Harmful in contact with skin.

Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
1-Methoxy-2-propanol (CAS	3 107-98-2)	
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	3739 mg/kg
Methyl ethyl ketone (CAS 78	8-93-3)	
Acute		
Dermal		
LD50	Rabbit	5000 mg/kg
Inhalation		
LC50	Rat	35.3 mg/l
Oral		
LD50	Rat	3000 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	14.1 ml/kg
Inhalation		
LC50	Rat	49000 mg/m³, 4 Hours

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 Components
 Species
 Test Results

 Oral LD50
 Rat
 5580 mg/kg

 Xylene (CAS 1330-20-7) Acute Oral LD50
 Rat
 3523 mg/kg

 Skin corrosion/irritation
 Causes skin irritation.

Serious eye damage/eye Cirritation

Causes serious eye irritation.

Respiratory or skin sensitization

**Respiratory sensitization** May cause allergic respiratory reaction. **Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity**No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

**Carcinogenicity** Based on available data, the classification criteria are not met. Inhalation of carbon black dust

may cause cancer, however due to the physical form of the product, inhalation of dust is not likely.

Risk of cancer cannot be excluded with prolonged exposure.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)

Cyclohexanone (CAS 108-94-1)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

2B Possibly carcinogenic to humans.

3 Not classifiable as to carcinogenicity to humans.

3 Not classifiable as to carcinogenicity to humans.

3 Not classifiable as to carcinogenicity to humans.

**NTP Report on Carcinogens** 

Not listed.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

**Reproductive toxicity** May damage fertility or the unborn child.

Specific target organ toxicity -

single exposure

May cause respiratory irritation. May cause drowsiness and dizziness.

Specific target organ toxicity -

repeated exposure

May cause damage to organs (Central Nervous System) through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** May cause damage to the following organs through prolonged or repeated exposure: Auditory

organs. Central nervous system. Peripheral nervous system. Lungs. Kidneys. Toluene: May

adversely affect the developing fetus.

## 12. Ecological information

**Ecotoxicity** Expected to be harmful to aquatic organisms.

Components		Species	Test Results
Methyl ethyl ketone (C	CAS 78-93-3)		
Aquatic			
Crustacea	LC50	Daphnia magna	12600 mg/l, 24 Hours
Fish	LC50	Goldfish (Carassius auratus)	> 5000 mg/l, 24 Hours
Tetrahydrofuran (CAS	109-99-9)		
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2160 mg/l, 96 Hours
Toluene (CAS 108-88	-3)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	6.86 - 8.48 mg/l, 96 hours

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**Test Results** Components **Species** 

Xylene (CAS 1330-20-7)

Aquatic

Fish LC50 2.6 mg/l, 96 hours Rainbow trout.donaldson trout

(Oncorhynchus mykiss)

Expected to be readily biodegradable. Persistence and degradability

**Bioaccumulative potential** 

Partition coefficient n-octanol / water (log Kow)

Cyclohexanone (CAS 108-94-1) 0.81 Methyl ethyl ketone (CAS 78-93-3) 0.29 Tetrahydrofuran (CAS 109-99-9) 0.46 Toluene (CAS 108-88-3) 2.73 Xylene (CAS 1330-20-7) 32

Mobility in soil Expected to remain in water or migrate through soil.

Other adverse effects None known.

13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of **Disposal instructions** 

contents/container in accordance with local/regional/national/international regulations. Mix with

compatible chemical which is less flammable and incinerate.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

## 14. Transport information

DOT

UN1133 **UN number** 

**UN proper shipping name** Adhesives, containing a flammable liquid

Transport hazard class(es) 3 Class Subsidiary risk

3 Label(s) Packing group Ш

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

149, B52, IB2, T4, TP1, TP8 Special provisions

Packaging exceptions 150 173 Packaging non bulk 242 Packaging bulk

**IATA** 

**UN** number UN1133

**UN proper shipping name** Adhesives, containing a flammable liquid

Transport hazard class(es)

Class 3 Subsidiary risk Label(s) 3 Ш Packing group **Environmental hazards** 

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**IMDG** 

**UN** number UN1133

**UN proper shipping name** Adhesives, containing a flammable liquid

Transport hazard class(es) Class 3

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Subsidiary risk Label(s) 3
Packing group II

**Environmental hazards** 

Marine pollutant No.

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

## 15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

## TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not established.

Not listed.

## CERCLA Hazardous Substance List (40 CFR 302.4)

1-Methoxy-2-propanol (CAS 107-98-2)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

LISTED

Tetrahydrofuran (CAS 109-99-9)

LISTED

Toluene (CAS 108-88-3)

LISTED

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

## SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Yes

chemical

## SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
Toluene	108-88-3	15 - 20	

#### Other federal regulations

## Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Toluene (CAS 108-88-3) Xylene (CAS 1330-20-7)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

# Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Methyl ethyl ketone (CAS 78-93-3) 6714 Toluene (CAS 108-88-3) 6594

## Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Methyl ethyl ketone (CAS 78-93-3) 35 %WV Toluene (CAS 108-88-3) 35 %WV

#### **DEA Exempt Chemical Mixtures Code Number**

Methyl ethyl ketone (CAS 78-93-3) 6714 Toluene (CAS 108-88-3) 594

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## **US** state regulations

#### **US. Massachusetts RTK - Substance List**

1-Methoxy-2-propanol (CAS 107-98-2)

Carbon black (CAS 1333-86-4)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

Tetrahydrofuran (CAS 109-99-9)

Toluene (CAS 108-88-3)

## US. New Jersey Worker and Community Right-to-Know Act

1-Methoxy-2-propanol (CAS 107-98-2)

Carbon black (CAS 1333-86-4)

Methyl ethyl ketone (CAS 78-93-3)

Tetrahydrofuran (CAS 109-99-9)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

## US. Pennsylvania Worker and Community Right-to-Know Law

1-Methoxy-2-propanol (CAS 107-98-2)

Carbon black (CAS 1333-86-4)

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

Tetrahydrofuran (CAS 109-99-9)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

## **US. Rhode Island RTK**

Cyclohexanone (CAS 108-94-1)

Methyl ethyl ketone (CAS 78-93-3)

Tetrahydrofuran (CAS 109-99-9)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

#### **US.** California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

## US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Carbon black (CAS 1333-86-4)

Ethylbenzene (CAS 100-41-4)

Quartz (CAS 14808-60-7)

Toluene (CAS 108-88-3)

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

<sup>\*</sup>A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 11-September-2015

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A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Version #

HMIS® ratings

Health: 2\* Flammability: 3 Physical hazard: 0

01

NFPA ratings



**Disclaimer** 

Goodrich Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

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