

1. Identification

Product identifier A-56-BR-1

Other means of identification

Synonyms 74-451-11; 74-451-11-1; 74-451-11-2; (Kit 74-451-E)

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 number (800)424-9300

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2B
Sensitization, respiratory Category 1
Reproductive toxicity (fertility) Category 2
Specific target organ toxicity, single exposure Category 3 narcotic effects
Specific target organ toxicity, repeated exposure Category 2 (Central Nervous System)
Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Causes skin irritation. Causes eye irritation. Suspected of damaging fertility. 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. Toxic to aquatic life with long lasting effects.

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. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

In case of fire: Use appropriate media to extinguish. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. 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. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage

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

Disposal

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

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
N-butyl Acetate	123-86-4	50-55
2-Chloro-1,3-butadiene polymers and copolymers	Proprietary	15-20
Toluene	108-88-3	10-15
Carbon black	1333-86-4	1-5
Heptane	142-82-5	1-5
Phenolic Resin	Proprietary	1-5
Magnesium oxide	1309-48-4	1-2
n-Hexane	110-54-3	<3
Methylcyclopentane	96-37-7	<2
Rosin	8050-09-7	<1

Composition comments

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

The manufacturer has claimed one or more hazardous ingredients as trade secret under the OSHA Hazard Communication Standard. The hazards of this (these) ingredient(s) are given on this SDS.

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. If experiencing respiratory symptoms: Call a poison center/doctor.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

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.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. Dermatitis. Prolonged exposure may cause chronic effects. May cause allergic respiratory reaction.

Indication of immediate medical attention and special treatment needed

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 under observation. Symptoms may be delayed.

General information

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). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

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

Specific hazards arising from the chemical

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. 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. During fire, gases hazardous to health may be formed such as: Carbon oxides (CO_x). Hydrogen Chloride (HCl).

Special protective equipment and precautions for firefighters

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

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Containers can build up pressure if exposed to heat (fire). USE WATER WITH CAUTION. Use water spray to cool unopened containers.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. 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.

Methods and materials for containment and cleaning up

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

Large Spills: Stop the flow of material, if this is without risk. 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 product from entering drains. 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.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

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. When using do not smoke. 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. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. 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)

Components	Type	Value	Form
Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)	PEL	5 mg/m3	
Carbon black (CAS 1333-86-4)	PEL	3.5 mg/m3	
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m3	
Ethylbenzene (CAS 100-41-4)	PEL	300 ppm 435 mg/m3	
Heptane (CAS 142-82-5)	PEL	100 ppm 2000 mg/m3	
Magnesium oxide (CAS 1309-48-4)	PEL	500 ppm 15 mg/m3	Total particulate.
N-butyl Acetate (CAS 123-86-4)	PEL	710 mg/m3	
n-Hexane (CAS 110-54-3)	PEL	150 ppm 1800 mg/m3 500 ppm	

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)	TWA	0.05 mg/m3	Inhalable fraction and vapor.
Carbon black (CAS 1333-86-4)	TWA	3.5 mg/m3	Inhalable fraction.
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	
Diphenylamine (CAS 122-39-4)	TWA	10 mg/m3	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
Magnesium oxide (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.
N-butyl Acetate (CAS 123-86-4)	STEL	200 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
n-Hexane (CAS 110-54-3)	TWA	150 ppm	
Toluene (CAS 108-88-3)	TWA	50 ppm	
	TWA	20 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)	TWA	5 mg/m3
Carbon black (CAS 1333-86-4)	TWA	3.5 mg/m3
Cyclohexane (CAS 110-82-7)	TWA	1050 mg/m3
		300 ppm
Diphenylamine (CAS 122-39-4)	TWA	10 mg/m3
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
		125 ppm
	TWA	435 mg/m3
		100 ppm
Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3
		440 ppm
	TWA	350 mg/m3
		85 ppm
N-butyl Acetate (CAS 123-86-4)	STEL	950 mg/m3
		200 ppm
	TWA	710 mg/m3
		150 ppm
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3
		50 ppm
Rosin (CAS 8050-09-7)	TWA	0.1 mg/m3
Toluene (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3
		100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedio n, without hydrolysis	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	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

n-Hexane (CAS 110-54-3) Can be absorbed through the skin.
 Toluene (CAS 108-88-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

n-Hexane (CAS 110-54-3)

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). Use of full-faced respiratory protection is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear protective gloves.

Other Wear protective gloves (i.e. latex, nitrile).

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. 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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Black.

Odor Solvent odor.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 150 - 258 °F (65.56 - 125.56 °C)

Flash point -15.0 °F (-26.1 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 1 %

Flammability limit - upper (%) 7.6 %

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 19.8 mm Hg at 20°C

Vapor density Heavier than air (air=1).

Relative density 0.931

Solubility(ies)

Solubility (water) Appreciable at 20°C.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature 399.02 °F (203.9 °C) is the lowest known value.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Bulk density 7.77 lb/gal

Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC (Weight %)	5.8 lb/gal

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	No dangerous reaction known under conditions of normal use.
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. Nitrates. Alkali metals. Amines. Acid. Bases. Organic absorbents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be harmful if inhaled. Mist or vapor may irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause damage to organs by inhalation.
Skin contact	May be harmful if absorbed through skin. Causes skin irritation.
Eye contact	Causes eye irritation.
Ingestion	Aspiration hazard if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. May cause digestive tract irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. Dermatitis. May cause allergic respiratory reaction.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways. Narcotic effects. May cause an allergic skin reaction.
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Components	Species	Test Results
Cyclohexane (CAS 110-82-7)		
Acute		
<i>Oral</i>		
LD50	Rat	12705 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	15400 mg/kg
<i>Inhalation</i>		
LC50	Rat	4000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	3510 - 4700 mg/kg
Heptane (CAS 142-82-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	103 mg/l, 4 Hours
Toluene (CAS 108-88-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	14.1 ml/kg
<i>Inhalation</i>		
LC50	Rat	49000 mg/m ³ , 4 Hours

Components	Species	Test Results
Oral LD50	Rat	636 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation.	
Respiratory or skin sensitization		
ACGIH Sensitization		
Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)	Dermal sensitization	
Rosin (CAS 8050-09-7)	Dermal sensitization Respiratory sensitization	
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitization	This product is not expected to cause skin sensitization. Rosin used in this product was tested and found not to be a skin sensitizer.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Risk of cancer cannot be excluded with prolonged exposure. Inhalation of carbon black dust may cause cancer, however due to the physical form of the product, inhalation of dust is not likely.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
2-Chloro-1,3-butadiene polymers and copolymers (CAS Proprietary)	3 Not classifiable as to carcinogenicity to humans.	
Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)	3 Not classifiable as to carcinogenicity to humans.	
Carbon black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.	
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Toluene (CAS 108-88-3)	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	Suspected of damaging fertility.	
Specific target organ toxicity - single exposure	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	This product contains components that may cause adverse effects to the central nervous systems, reproductive system, liver, and kidneys Prolonged exposure may cause chronic effects.	

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Cyclohexane (CAS 110-82-7)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 3.961 - 5.181 mg/l, 96 hours
Diphenylamine (CAS 122-39-4)		
Aquatic		
Algae	EC50	Algae 0.43 mg/l, 72 h
Ethylbenzene (CAS 100-41-4)		
Aquatic		
Crustacea	LC50	Daphnia magna 1.8 mg/l, 96 hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) 4.2 mg/l, 96 hours

Components	Species		Test Results
Rosin (CAS 8050-09-7)			
Aquatic			
Crustacea	EC50	Daphnia	4.5 mg/l, 48 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

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Cyclohexane (CAS 110-82-7)	3.44
Ethylbenzene (CAS 100-41-4)	3.15
Heptane (CAS 142-82-5)	4.66
Methylcyclopentane (CAS 96-37-7)	3.37
N-butyl Acetate (CAS 123-86-4)	1.78
Toluene (CAS 108-88-3)	2.73
n-Hexane (CAS 110-54-3)	3.9

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

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 Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1133
UN proper shipping name	Adhesives, containing a flammable liquid
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	149, B52, IB2, T4, TP1, TP8
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

UN number	UN1133
UN proper shipping name	Adhesives, containing a flammable liquid

Transport hazard class(es)

Class 3
Subsidiary risk -
Label(s) 3

Packing group II
Environmental hazards Yes

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
Subsidiary risk -
Label(s) 3

Packing group II
Environmental hazards

Marine pollutant Yes

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 Not established.

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 listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)	LISTED
Cyclohexane (CAS 110-82-7)	LISTED
Ethylbenzene (CAS 100-41-4)	LISTED
Heptane (CAS 142-82-5)	LISTED
Methylcyclopentane (CAS 96-37-7)	LISTED
N-butyl Acetate (CAS 123-86-4)	LISTED
n-Hexane (CAS 110-54-3)	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 chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Toluene	108-88-3	10-15
n-Hexane	110-54-3	<3
Cyclohexane	110-82-7	< 1
Ethylbenzene	100-41-4	< 0.2

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Ethylbenzene (CAS 100-41-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

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

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

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

Toluene (CAS 108-88-3) 6594

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

Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

US state regulations

US. Massachusetts RTK - Substance List

Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)

Carbon black (CAS 1333-86-4)

Cyclohexane (CAS 110-82-7)

Diphenylamine (CAS 122-39-4)

Ethylbenzene (CAS 100-41-4)

Heptane (CAS 142-82-5)

Magnesium oxide (CAS 1309-48-4)

Methylcyclopentane (CAS 96-37-7)

N-butyl Acetate (CAS 123-86-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

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

Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)

Carbon black (CAS 1333-86-4)

Cyclohexane (CAS 110-82-7)

Diphenylamine (CAS 122-39-4)

Ethylbenzene (CAS 100-41-4)

Heptane (CAS 142-82-5)

Magnesium oxide (CAS 1309-48-4)

Methylcyclopentane (CAS 96-37-7)

N-butyl Acetate (CAS 123-86-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

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

Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)

Carbon black (CAS 1333-86-4)

Cyclohexane (CAS 110-82-7)

Diphenylamine (CAS 122-39-4)

Ethylbenzene (CAS 100-41-4)

Heptane (CAS 142-82-5)

Magnesium oxide (CAS 1309-48-4)

Methylcyclopentane (CAS 96-37-7)

N-butyl Acetate (CAS 123-86-4)

n-Hexane (CAS 110-54-3)

Rosin (CAS 8050-09-7)

Toluene (CAS 108-88-3)

US. Rhode Island RTK

Bis(dimethylthiocarbamoyl) disulfide (CAS 137-26-8)

Cyclohexane (CAS 110-82-7)

Diphenylamine (CAS 122-39-4)

Ethylbenzene (CAS 100-41-4)

N-butyl Acetate (CAS 123-86-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

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

Bisphenol-a-(epichlorhydrin), Reaction Product (CAS 25068-38-6)
Carbon black (CAS 1333-86-4)
Ethylbenzene (CAS 100-41-4)
Formaldehyde (CAS 50-00-0)
Toluene (CAS 108-88-3)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

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).

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

Issue date 12-August-2015
Revision date -
Version # 01
HMIS® ratings Health: 2*
Flammability: 3
Physical hazard: 0

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