

SAFETY DATA SHEET

1. Identification

Product identifier	WASTE PAINT AND SOLVENT SOAKED RAGS
Other means of Identification	
SDS number	KWAR-23
Version#	01
Revision date	Not Applicable
Other means of Identification	
Synonyms	Various coatings and thinners on waste rags
Recommended use	Disposal
Recommended restrictions	For Industrial use only.

NOTE: This document addresses the general hazards associated with handling waste paint related materials. Such materials can vary widely in composition from location to location and from day to day. Therefore, components listed in Section 3 may be missing from specific materials while other components which are present are not listed on the SDS.

PLEASE REVIEW WASTE PROFILE DOCUMENTS FOR SPECIFIC COMPOSITIONAL INFORMATION.

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer

Kaiser Aluminum Warrick LLC
4000 W. State Route 66
Newburgh, IN 47629

Emergency Information

CHEMTREC: +1-703-527-3887 +1-800-424-9300 (24 Hour Emergency Telephone, multiple languages spoken); Kaiser Warrick: +1-877-335-9886 (24 Hour Emergency Telephone, only English spoken)

Website

For a current Safety Data Sheet, refer to For a current Safety Data Sheet, refer to Kaiser Aluminum website: <https://www.kaiseraluminum.com/customer-portal/safety-data-sheets/>

2. Hazard(s) identification

Classification

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

The following statements summarize the health effects generally expected in cases of overexposures. User specific situations should be assessed by a qualified individual. Additional health information can be found in Section 11.

Physical hazards	Flammable solids	Category 2
Health hazards	Acute toxicity, dermal	Category 4
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 28
	Sensitization, skin	Category 1A
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2

Environmental hazards

Hazardous to the ozone layer

Not applicable

OSHA defined hazards

Not classified.

Label elements



Signal word

Warning

Hazard statement

Flammable solid. Harmful in contact with skin. Harmful if inhaled. Causes skin irritation. Causes eye irritation. May cause an allergic skin reaction. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors. Use only outdoors or in a well-ventilated area. Wear protective gloves. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

In case of fire: Use appropriate media for extinction. If exposed or concerned: Get medical advice/attention. 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 ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

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

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Hazard(s) not otherwise classified (HNOC)

In case of fire, use carbon dioxide/foam/alcohol resistant foam/chemical powder for extinction.

Supplemental Information

Solvent vapors may form explosive air/vapor mixtures at room temperature. Vapors are heavier than air and may travel considerable distances along the ground to a source of ignition. Closed containers may burst or explode when exposed to extreme heat. Material and rags contaminated with solvents can be combustible and can spontaneously ignite.

3. Composition/information on ingredients

Composition comments

Complete composition is provided below and may include some components classified as non-hazardous.

Mixtures

Chemical name	Common name and synonyms	CAS Number	%
Major components		NA	>60
Xylene (mixed isomers)		1330-20-7	
Toluene		108-88-3	
Paint resins *		Not available	
Methyl ethyl ketone		78-93-3	
Hexane		110-54-3	
1,2,4-Trimethyl benzene		95-63..fl	
Minor components			<40
Methyl alcohol		67-56-1	
Methylene bisphenol isocyanate (MDI)		101-68-8	
Ethylbenzene		100-41-4	
Isophorone		78-59-1	
2-Butoxyethanol		111-76-2	

Chemical name	Common name and synonyms	CAS number	%
Ethyl alcohol		64-17-5	
Methylisobutyl ketone		108-10-1	
Mineral Spirits		8032-32-4	
Naphthalene		91-20-3	<5
Formaldehyde		50-00-0	<1
D/acetone Alcohol		123-42-2	
Cyclohexanone		108-94-1	

Additional Information

* - Includes epoxy, vinyl, acrylic and polyester.

Exact composition will vary. Unless additional information is available, processor should assume that all potential ingredients are present.

4. First-aid measures

Eye contact Skin contact

Rinse eyes with plenty of water or saline for at least 15 minutes. Consult a physician immediately.

Remove contaminated clothing. Wash with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Inhalation

Remove to fresh air. Check for clear airway, breathing, and presence of pulse. If breathing is difficult, provide oxygen. Loosen any tight clothing on neck or chest. Provide cardiopulmonary resuscitation for persons without pulse or respirations. Call a physician immediately.

Ingestion

If swallowed, dilute by drinking water. Recommend quantities up to 30 ml (-1 oz.) in children and 250 ml (-9 oz.) in adults. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do NOT Induce vomiting. Get medical attention immediately.

Most Important symptoms/effects, acute and delayed

Direct contact: Can cause irritation of the eyes and skin. Can be absorbed through the skin. Vapors: Can cause irritation of the respiratory tract. Acute overexposure: Can cause central nervous system effects and abnormal heart rhythms.

See Section 11 of the SDS for additional information on health

Medical conditions aggravated by exposure

hazards. Asthma, chronic lung disease, and skin rashes.

Indication of Immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Use Class B extinguishing agents [Carbon dioxide, Dry chemical (ABC or BC), Foam].

Unsuitable extinguishing media

Heavy streams of water, when directed into burning liquid, will cause frothing and spread of burning material. Water spray may be ineffective and may spread flames.

Specific hazards arising from the chemical

Solvent vapors may form explosive air/vapor mixtures at room temperature. Vapors are heavier than air and may travel considerable distances along the ground to a source of ignition. Closed containers may burst or explode when exposed to extreme heat. Material and rags contaminated with solvents can be combustible and can spontaneously ignite.

Special protective equipment and precautions for firefighters

Firefighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Fire fighting equipment/instructions

Use water spray to minimize vapors. Use water spray to cool exposed containers. Move undamaged containers away from heat or flame, if possible. Water spray may be used to flush spills away from ignition sources.

General fire hazards

Flammable.

Explosion data

Sensitivity to mechanical Impact

Not sensitive.

Sensitivity to static discharge

Prevent electrostatic charge build-up by using common bonding and grounding techniques.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Use adequate ventilation to reduce vapor concentrations. Use personal protection recommended in Section 8 of the SDS.

Personal precautions, protective equipment and emergency procedures

For emergency responders	Avoid contact with skin and eyes. Use adequate ventilation to reduce vapor concentrations. Use personal protection recommended in Section 8 of the SDS.
Evacuation procedures	None necessary.
Methods and materials for containment and cleaning up	Use adequate ventilation to reduce vapor concentrations. Avoid all Ignition sources. Collect in closed metal containers. Absorb remainder with absorbent material. Spill may be reportable to the National Response Center.

7. Handling and storage

Handling	<p>Avoid contact with skin and eyes. Use with adequate explosion-proof ventilation to reduce vapor concentrations. Keep away from sources of Ignition - No smoking.</p> <p>Prevent electrostatic charge build-up by using common bonding and grounding techniques. Use non-sparking tools and explosion-proof equipment.</p> <p>Empty containers may contain residual product. Do not cut or weld on containers. Use personal protection recommended in Section 8 of the SOS.</p>
Storage	<p>Store away from heat, sparks, flames, oxidizers, and other incompatible substances.</p> <p>Contaminated rags should be stored in a self-extinguishing or other type of metal waste container to protect against fires from spontaneous combustion. Store in a cool and well-ventilated place.</p>

8. Exposure controls/personal protection

Occupational exposure limits

U.S. -OSHA Components	Type	Value	Form
Toluene (CAS 108-88-3)	STEL	500 ppm	10 minute peak per 8 hour shift
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)			
Components	Type	Value	
Formaldehyde (CAS 50-00-0)	STEL	2ppm	
	TWA	0.75ppm	
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)			
Components	Type	Value	
2-Butoxyethanol (CAS 111-76-2)	TWA	240 mg/m3	
Cyclohexanone (CAS 108-94-1)	PEL	50ppm 200 mg/m3	
Diacetone Alcohol (CAS 123-42-2)	PEL	50ppm 240 mg/m3	
Ethyl alcohol (CAS 64-17-5)	PEL	50ppm 1900mg/m3 1000 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	435 mg/m3 100 ppm	
Hexane (GAS 110-54-3)	PEL	1800 mg/m3 500 ppm	
Isophorone (CAS 78-59-1)	TWA	140 mg/m3 25ppm	
Methyl alcohol (CAS 67-56-1)	PEL	260 mg/m3 200 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3 200 ppm	
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)	Ceiling	0.2mg/m3	

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

Components	Type	Value
Methylisobutyl ketone (CAS 108-10-1)	TWA	0.02 ppm 410 mg/m ³
Naphthalene (CAS 91-20-3)	PEL	100 ppm 50 mg/m ³
Xylene (mixed isomers) (CAS 1330-20-7)	TWA	10ppm 435 mg/m ³
		100 ppm

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

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

ACGIH

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	125 ppm

US ACGIH Threshold Limit Values: Ceiling Limit Value: mg/m³ & ppm

Components	Type	Value
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Formaldehyde (CAS 50-00-0)	Ceiling	0.3 ppm
Isophorone (CAS 78-59-1)	Ceiling	5 ppm

US ACGIH Threshold Limit Values: Short Term Exposure Limit (STEL): mg/m³ & ppm

Components	Type	Value
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Cyclohexanone (CAS 108-94-1)	STEL	50 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
Methyl alcohol (CAS 67-56-1)	STEL	250 ppm
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm
Methylisobutyl ketone (CAS 108-10-1)	STEL	75 ppm
Xylene (mixed isomers) (CAS 1330-20-7)	STEL	150 ppm

US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m³ & ppm

Components	Type	Value
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1,2,4-Trimethyl benzene (CAS 95-63-6)	TWA	25 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
Cyclohexanone (CAS 108-94-1)	TWA	20ppm
Diacetone Alcohol (CAS 123-42-2)	TWA	50ppm
Ethylbenzene (CAS 100-41-4)	TWA	20ppm
Hexane (CAS 110-54-3)	TWA	50ppm
Methyl alcohol (CAS 67-56-1)	TWA	200 ppm
Methyl ethyl ketone (CAS 78-93-3)	TWA	200 ppm
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)	TWA	0.005 ppm

US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m3 & ppm

Components	Type	Value
Methylisobutyl ketone (CAS 108-10-1)	TWA	20 ppm
Naphthalene (CAS 91-20-3)	TWA	10ppm
Toluene (CAS 108-88-3)	TWA	20ppm
Xylene (mixed isomers) (CAS 1330-20-7)	TWA	100 ppm

Components	Type	Value	Form
2-Butoxyethanol (CAS 111-76-2)	TWA	5ppm	Skin

Exposure guidelines

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cyclohexanone (CAS 108-94-1)	Can be absorbed through the skin.
Methyl alcohol (CAS 67-56-1)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1)	Can be absorbed through the skin.
Hexane (CAS 110-54-3)	Can be absorbed through the skin.
Methyl alcohol (CAS 67-56-1)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

2-BUTOXYETHANOL (EGBE) (CAS 111-76-2)	Can be absorbed through the skin.
CYCLOHEXANONE (CAS 108-94-1)	Can be absorbed through the skin.
METHYL ALCOHOL; METHANOL (CAS 67-56-1)	Can be absorbed through the skin.
NAPHTHALENE (CAS 91-20-3)	Can be absorbed through the skin.
N-HEXANE (CAS 110-54-3)	Can be absorbed through the skin.
TOLUENE; TOLUOL (CAS 108-88-3)	Can be absorbed through the skin.

US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).

2-Butoxyethanol (CAS 111-76-2)	Skin designation applies.
Cyclohexanone (CAS 108-94-1)	Skin designation applies.
Methyl alcohol (CAS 67-56-1)	Skin designation applies.
Toluene (CAS 108-88-3)	Skin designation applies.

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

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
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General

The need for personal protective equipment should be based upon a hazard assessment and recommendations from health/ safety professionals.

Appropriate engineering controls

Use with adequate explosion-proof ventilation to meet the limits listed in Section 8. Electrical equipment should meet NFPA/NEC requirements where material is processed.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear impervious gloves to avoid direct skin contact. Suitable materials: Neoprene or Nitrile. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Other

Wear suitable protective clothing.

Respiratory protection

Use NIOSH-approved respiratory protection as specified by an Industrial Hygienist or other qualified professional if concentrations exceed the limits listed in Section 8. Suggested respiratory protection: Organic vapor cartridge.

Thermal hazards

None known.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

Control parameters

Follow standard monitoring procedures.

Environmental exposure controls

No special environmental precautions required.

9. Physical and chemical properties

Form	Solid. Cloth or rags.
Color	Various colors.
Odor	Solvent.
Odor threshold	Not determined
pH	Not applicable
Density	Not determined
Melting point/freezing point	Not applicable
Initial boiling point and boiling range	Not applicable
Flash point	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - upper (%)	Not determined
Flammability limit - lower (%)	Not determined
Explosive properties	Not available.
Vapor pressure	Not determined
Vapor density	Not determined
Relative density	Not available.
Solubility(ies)	Not determined
Partition coefficient (n-octanol/water)	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions of use, storage, and transportation. However, solvent or oil contaminated rags can undergo spontaneous combustion if stored or managed improperly.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	None known.
Incompatible materials	Heat and strong oxidizers (nitrates, perchlorates or sulfuric acid).
Hazardous decomposition products	Carbon monoxide, carbon dioxide, hydrogen chloride, hydrogen cyanide, aldehydes and partially oxidized hydrocarbons.

11. Toxicological Information

Health effects associated with ingredients

Toluene: Can cause irritation of eyes, skin and upper respiratory tract. Skin contact: Can be absorbed through the skin. Acute overexposures: Can cause drowsiness (narcosis), respiratory arrest, abnormal heart rhythms (arrhythmia), coma and death. Chronic overexposures: Can cause liver damage, kidney damage, central nervous system damage, damage to the heart muscle (cardiomyopathy) and reproductive harm.

Xylene: Can cause irritation of eyes, mucous membranes, skin and respiratory tract. Skin contact: Can be absorbed through the skin. Acute overexposures: Can cause central nervous system effects (nausea, dizziness, loss of coordination and loss of consciousness), coma and death. Can pass through the placenta. Chronic overexposures: Can cause reversible damage to the eyes, memory loss, abnormal heart rhythms (arrhythmia), liver damage, kidney damage, fetal toxicity and reproductive harm.

Methyl ethyl ketone (MEK, 2-Butanone): Can cause irritation and corneal damage of eyes. Can cause irritation of mucous membranes, skin, and upper respiratory tract. Skin contact: Can be absorbed through the skin in toxic amounts. Acute overexposures: Can cause headache, central nervous system effects (nausea, dizziness, and loss of consciousness) and asphyxiation. Additional information: Studies with experimental animals have found embryo toxicity and fetal toxicity.

Ethanol (Ethyl alcohol): Can cause irritation of eyes and mucous membranes. Acute overexposures: Can cause central nervous system effects (nausea, dizziness and loss of coordination). Chronic overexposures: Can cause liver damage, kidney damage and reproductive harm.

Methyl isobutyl ketone (4-Methyl pentan-2-one, MiBK): Can cause irritation of eyes, skin and respiratory tract. Acute overexposures: Can cause loss of appetite and central nervous system effects (nausea, dizziness and loss of coordination). Chronic overexposures: Can cause liver damage, kidney damage (renal tube damage), fetal toxicity and weakness in the extremities (peripheral neuropathy).

Isophorone (3,5,5-trimethylcyclohex-2-enone): Can cause severe irritation and burns of eyes. Can cause irritation of mucous membranes, skin and respiratory tract. Acute overexposures: Can cause central nervous system effects (nausea, dizziness and loss of coordination). Additional information: Studies with experimental animals by inhalation have found kidney damage.

2-Butoxyethanol (Butyl cellosolve, EGMBE): Can cause irritation of the eyes, skin and respiratory tract. Skin contact: Can be absorbed through the skin in toxic amounts. Acute and chronic overexposures: Can cause central nervous system effects (nausea, dizziness and loss of consciousness), the accumulation of fluid in the lungs (pulmonary edema), blood cell damage, kidney damage and liver damage.

Ethyl benzene: Can cause irritation of eyes, skin and respiratory tract. Acute overexposures: Can cause central nervous system effects (nausea, dizziness, and loss of coordination) Chronic overexposures: Can cause central nervous system damage, liver damage, kidney damage and reproductive harm. IARC/NTP: Listed as possibly carcinogenic to humans by IARC (Group 2B). Additional information: Studies (inhalation) with experimental animals have found kidney cancer, liver cancer, lung cancer and testicular cancer.

n-Hexane: Can cause irritation of eyes, mucous membranes and skin. Skin contact: Can be absorbed through the skin. Acute overexposures: Can cause central nervous system effects (nausea, dizziness and loss of coordination). Chronic overexposures: Can cause weakness in the extremities (peripheral neuropathy), peripheral nerve damage, loss of muscular control and paralysis.

Methanol (Methyl alcohol): Can cause irritation of eyes, skin and upper respiratory tract. Skin contact: Can be absorbed through the skin in toxic amounts. Acute overexposures: Can cause central nervous system effects (nausea, drowsiness and loss of coordination), nerve damage, liver damage, kidney damage, damage to the heart muscle (cardiomyopathy), permanent blindness and death. Effects can be delayed up to 18-24 hours. A single overexposure can cause permanent blindness and nerve damage.

Methylene bisphenyl isocyanate (MDI): Can cause irritation of eyes, skin and respiratory tract. Skin contact: can cause sensitization and allergic contact dermatitis. Chronic overexposures: Can cause respiratory sensitization and asthma. Additional information: In sensitized populations, very low concentrations of isocyanates can cause asthma-like reactions.

Trimethyl benzene: Can cause irritation of eyes, skin and respiratory tract. Acute overexposures: Can cause bronchitis, central nervous system effects (nausea, dizziness, loss of coordination and loss of consciousness) and death. Chronic overexposures: Can cause asthma-like bronchitis, blood cell damage and blood disorders. Additional information: Can pass through the placenta

Naphthalene: Can cause Irritation and corneal damage to eyes. Can cause irritation of skin. Skin contact: Can cause sensitization. Can be absorbed through the skin in toxic amounts. Acute overexposures: Can cause central nervous system effects (nausea, dizziness and loss of coordination) and reduced ability of the blood to carry oxygen (methemaglobin). Chronic overexposures: Can cause liver damage and blood disorders. IARC/NTP: Listed as "reasonably anticipated to be a human carcinogen" by the NTP. Listed as possibly carcinogenic to humans by IARC (Group 28).

Formaldehyde: Can cause irritation of eyes, mucous membranes, skin and respiratory tract. Skin contact (prolonged or repeated): Can cause sensitization and allergic contact dermatitis. Chronic overexposures: Can cause nasal tumors and throat tumors. IARC/NTP: Listed as "reasonably anticipated to be a human carcinogen" by the NTP. Listed as probably carcinogenic to humans by IARC (Group 2A).

Solvents: Can cause Irritation of eyes, mucous membranes, skin and respiratory tract. Skin contact (prolonged or repeated): Can cause defatting of the skin and dermatitis. Acute overexposures: Can cause headache, drowsiness (narcosis), liver damage, kidney damage and central nervous system effects (nausea, dizziness, loss of coordination, and loss of consciousness). Chronic overexposures: Can cause loss of coordination, reduction in reaction times and central nervous system damage.

Health effects associated with compounds formed during processing

No new/additional compounds are expected to be formed during processing.

Information on likely routes of exposure

Eye contact

2-Butoxyethanol

Direct contact: Can cause Irritation.

100mg/day

Result: Positive

Species: Rabbit

Organ: Eye

Test Duration: 24 Hours

Severity: Moderate

Skin contact

Direct contact: Can cause irritation. Prolonged or repeated skin contact may cause dermatitis and sensitization. Can be absorbed through the skin.

Inhalation

Vapors: Can cause irritation of the respiratory tract. Acute overexposure: Can cause central nervous system effects (nausea, dizziness and loss of coordination) and abnormal heart rhythms (arrhythmia). Chronic overexposures: Can cause sensitization, liver damage, kidney damage, central nervous system damage, damage to the heart muscle (cardiomyopathy), fetal toxicity and reproductive harm.

Ingestion

Can cause Irritation and central nervous system effects (nausea, dizziness and loss of coordination).

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact: Can cause irritation of the eyes and skin. Can be absorbed through the skin.

Vapors: Can cause irritation of the upper respiratory tract. Acute overexposure: Can cause central nervous system effects and abnormal heart rhythms.

Information on toxicological effects

Components

Species

Test Results

1,2,4-Trimethyl benzene (CAS 95-63-6)

Acute

Dermal

LD50

Rabbit

> 3160 mg/kg

Inhalation

LC50

Rat

> 2000 ppm, 48 Hours

Components	Species	Test Results
Oral LD50	Rat	6 /g/kg
2-Butoxyethanol (CAS 111-76-2)		
Acute		
Dermal LD50	Rabbit	400 mg/kg
	Rat	2270 mg/kg, 4 Hours
Inhalation LC50	Mouse	700 ppm, 7 Hours
	Rat	2 - 20 mg/l, 4 Hours
		450 ppm, 4 Hours
Oral LD50	Mouse	1.2 g/kg
	Rat	6600 mg/kg
		560 mg/kg
Diacetone Alcohol (CAS 123-42-2)		
Acute		
Dermal LD50	Rabbit	14.5 ml/kg
Oral LD50	Rat	4 g/kg
Ethyl alcohol (CAS 64-17-5)		
Acute		
Inhalation LC50	Mouse	39 mg/l, 4 Hours
	Rat	20000 ppm, 10 Hours
Oral LD50	Dog	5.5 g/kg
	Guinea pig	5.6 g/kg
	Mouse	3450 mg/kg
	Rat	6.2 g/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal LD50	Rabbit	17800 mg/kg
Oral LD50	Rat	3500 mg/kg
Formaldehyde (CAS 50-00-0)		
Acute		
Inhalation LC50	Mouse	0.414 mg/l, 4 Hours
		0.4 mg/l, 2 Hours
	Rat	0.82 mg/l, 0.5 Hours
		0.48 mg/l, 4 Hours
Oral LD50	Guinea pig	260 mg/kg
	Mouse	42 mg/kg
	Rat	100 mg/kg

Components	Species	Test Results
Hexane (CAS 110-54-3)		
Acute		
Inhalation		
LC50	Mouse	48000 ppm, 4 Hours
Oral		
LD50	Rat	28710 mg/kg
Isophorone (CAS 78-59-1)		
Acute		
Dermal		
LD50	Rabbit	1500 mg/kg
Inhalation		
LC50	Rat	7 mg/l, 4 Hours
Oral		
LD50	Mouse	2 g/kg
	Rat	1000 mg/kg
Methyl alcohol (CAS 67-56-1)		
Acute		
Dermal		
LD50	Rabbit	15800 mg/kg
Inhalation		
LC50	Cat	85.41 mg/l, 4.5 Hours
	Rat	64000 ppm, 4 Hours
		87.5 mg/l, 6 Hours
Oral		
LD50	Mouse	7300 mg/kg
	Rat	5628 mg/kg
Other		
LD50	Mouse	4100 mg/kg
	Rabbit	1826 mg/kg
	Rat	2131 mg/kg
Methyl ethyl ketone (CAS 78-93-3)		
Acute		
Dermal		
LD50	Rabbit	>8000 mg/kg
Inhalation		
LC50	Mouse	11000 ppm, 45 Minutes
	Rat	11700 ppm, 4 Hours
Oral		
LD50	Mouse	670 mg/kg
	Rat	2300 • 3500 mg/kg
Methylene bisphenol Isocyanate (MDI) (CAS 101-68-8)		
Acute		
Inhalation		
LC50	Rat	0.369 mg/l, 4 Hours
Methylisobutyl ketone (CAS 108-10-1)		
Acute		
Dermal		
LD50	Rabbit	> 16000 mg/kg

Components	Species	Test Results
Inhalation		
LC50	Rat	8.2 mg/l, 4 Hours
Oral		
LD50	Rat	2080 mg/kg
Mineral Spirits (CAS 8032-32-4)		
Acute		
Inhalation		
LC50	Rat	3400 mg/l, 4 Hours
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
	Rat	> 20 g/kg
Oral		
LD50	Guinea pig	1200 mg/kg
	Rat	490 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	12124 mg/kg
		14.1 ml/kg
Inhalation		
LC50	Mouse	5320 ppm, 8 Hours
		400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
Oral		
LD50	Rat	2.6 g/kg
Xylene (mixed isomers) (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 43 g/kg
Inhalation		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
Oral		
LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg
Acute toxicity	Harmful if inhaled. Harmful in contact with skin.	
Skin corrosion/irritation	Causes eye irritation.	
Serious eye damage/eye Irritation	Causes eye irritation.	
Eye Contact		
2-Butoxyethanol		100 mg/day
		Result: Positive
		Species: Rabbit
		Organ: Eye
		Test Duration: 24 Hours
		Severity: Moderate

Respiratory or skin sensitization

ACGIH Sensitization

Formaldehyde (GAS 50-00-0)

Dermal sensitization

Respiratory sensitization

Respiratory sensitization Based on available data, the classification criteria are not met.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Pre-existing conditions aggravated by exposure Asthma, chronic lung disease, and skin rashes.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (GAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
Cyclohexanone (GAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Ethylbenzene (GAS 100-41-4)	2B Possibly carcinogenic to humans.
Formaldehyde (GAS 50-00-0)	1 Carcinogenic to humans.
Methylene bisphenol isocyanate (MDI) (GAS 101-68-8)	3 Not classifiable as to carcinogenicity to humans.
Methylisobutyl ketone (GAS 108-10-1)	2B Possibly carcinogenic to humans.
Naphthalene (GAS 91-20-3)	2B Possibly carcinogenic to humans.
Toluene (GAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (mixed isomers) (GAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

US OSHA Hazard Categories (10)

Not regulated.

US OSHA Hazard Categories (9)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Formaldehyde (GAS 50-00-0)	Known to be Human Carcinogen.
Naphthalene (GAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formaldehyde (GAS 50-00-0)	Cancer
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Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

Components	Species	Test Results
1,2,4-Trimethyl benzene (GAS 95-63-6)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 7.19 -8.28 mg/l, 96 hours
2-Butoxyethanol (GAS 111-76-2)		
Aquatic		
Crustacea	EC50	Daphnia magna 1000 mg/l, 48 hours
Fish	LC50	Inland silverside (<i>Menidia beryllina</i>) 1250 mg/l, 96 hours 1250 mg/l, 96 hours Marine water
Cyclohexanone (GAS 108-94-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 481 - 578 mg/l, 96 hours
Diacetone Alcohol (GAS 123-42-2)		
Aquatic		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) 420 mg/l, 96 hours

Components		Species	Test Results
Ethyl alcohol (CAS 64-17-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	7.5 - 11 mg/l, 96 hours
Formaldehyde (CAS 50-00-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	4.3 - 7.8 mg/l, 48 hours
Fish	LC50	Striped bass (Marone saxatills)	10.302 - 16.743 mg/l, 96 hours
Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
Isophorone (CAS 78-59-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	132 - 159 mg/l, 96 hours
Methyl alcohol (CAS 67-56-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Methyl ethyl ketone (CAS 78-93-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	4025 - 6440 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	> 400 mg/l, 96 hours
Methylisobutyl ketone (CAS 108-10-1)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	492 - 593 mg/l, 96 hours
Naphthalene (CAS 91-20-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	1.11 - 1.68 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	Coho salmon, silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours
Xylene (mixed isomers) (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	No data available on bioaccumulation.		
Partition coefficient n-octanol / water (log Kow)			
2-Butoxyethanol			0.83
Cyclohexanone			0.81
Diacetone Alcohol			-0.098

Partition coefficient n-octanol / water (log Kow)

Ethyl alcohol	-0.31
Ethylbenzene	3.15
Formaldehyde	0.35
Hexane	3.9
Isophorone	1.7
Methyl alcohol	-0.77
Methyl ethyl ketone	0.29
Methylisobutyl ketone	1.31
Naphthalene	3.3
Toluene	2.73
Xylene (mixed isomers)	3.12-3.2

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Reuse or recycle material whenever possible. Have soiled rags cleaned for reuse. If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.

Waste codes RCRA Status: Must be determined at the point of waste generation. If material is disposed as a waste, it must be characterized under RCRA according to 40 CFR, Part 261, or state equivalent in the U.S.
Possible RCRA waste codes: D035, F003 or FOOS

Waste from residues/unused products If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport information**General Shipping Information****Basic Shipping Information**

ID number	UN3175
Proper shipping name	Solids containing flammable liquid, n.o.s. (name)
Hazard class	4.1
Packing group	II

General Shipping Notes

- In the open parenthesis, "(name)", for technical names in the shipping name, insert the two flammable chemicals from the Section 3 components that occur most frequently for this shipment.

DOT Specific Notes

- Precede proper shipping name with the word "Waste" when required to be shipped using a U.S. EPA hazardous waste manifest
- Delete "RQ" reference when containing less than the reportable quantity of chemicals in Section 3 per packaging.
- 49 CFR 172.101 authorizes steel drums tested for solids per Part 173.212, and exception 173.12(c) allows the reuse (used drums) for waste without having to meet reconditioning rules at 173.28(b). However, Special Provision (SP) 47 requires leakproofness testing of the package (drums). Therefore, ship these "solids" in drums marked for liquids as per Part 173.24a(b)(3) following the rules for converting the specific gravity capacity ratings for liquids to gross weight capacity values for solids. (drums manufactured for solids are not tested for leakproofness).

IMDG Notes

- While exceptions may apply (e.g.; does not meet IMDG (International Maritime Dangerous Goods) marine pollutant criteria, domestic transport in some countries), if transported internationally by water, unless this material is already listed as a IMDG marine pollutant, a marine pollutant classification determination must be made in accordance with IMDG 2.9.3.3 or 2.9.3.4, as appropriate and prior to transport.

Disclaimer

This section provides basic classification information and, where relevant, information with respect to specific modal regulations, environmental hazards and special precautions. otherwise, it is presumed that the information is not available/not relevant

15. Regulatory information

US federal regulations In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.

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

Not regulated.

TSCA Chemical Action Plans, Chemicals of Concern

Methylene bisphenol isocyanate (MDI) (GAS 101-68-8) Methylene Diphenyl Diisocyanate (MDI) And Related Compounds Action Plan [RIN 2070-ZA15]

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2)	Listed.
Cyclohexanone (CAS 108-94-1)	Listed.
Ethyl alcohol (CAS 64-17-5)	Listed.
Ethylbenzene (CAS 100-41-4)	Listed.
Formaldehyde (CAS 50-00-0)	Listed.
Hexane (CAS 110-54-3)	Listed.
Isophorone (CAS 78-59-1)	Listed.
Methyl alcohol (CAS 67-56-1)	Listed.
Methyl ethyl ketone (CAS 78-93-3)	Listed.
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)	Listed.
Methylisobutylketone (CAS 108-10-1)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Toluene (CAS 108-88-3)	Listed.
Xylene (mixed isomers) (CAS 1330-20-7)	Listed.

US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity

Formaldehyde (CAS 50-00-0)	100 LBS
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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Formaldehyde (CAS 50-00-0)	Cancer
	Skin sensitization
	Respiratory sensitization
	Eye irritation
	Skin irritation
	Respiratory tract irritation
	Acute toxicity Flammability

US OSHA Hazard Categories (9)

Not regulated.

US OSHA Hazard Categories (10)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Formaldehyde	50-00-0	100	500lbs		

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Xylene (mixed isomers)	1330-20-7	-
Toluene	108-88-3	-
Hexane	110-54-3	-
1,2,4-Trimethyl benzene	95-63-6	-
Methyl alcohol	67-56-1	-
Methylene bisphenol isocyanate (MDI)	101-68-8	-
Ethylbenzene	100-41-4	-
2-Butoxyethanol	111-76-2	-
Methylisobutyl ketone	108-10-1	-
Naphthalene	91-20-3	<5
Formaldehyde	50-00-0	<1

US state regulations

US. California Proposition 65

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Ethyl alcohol (CAS 64-17-5)	Listed: April 29, 2011
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Other Information

- Guide to Occupational Exposure Values 2012, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
- NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, September 2005.
- expub, Expert Publishing, LLC., www.expub.com,
- Ariel, 3E Company, www.3Ecompany.com

Key/Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstract Services
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPR	Cardio-pulmonary Resuscitation
DOT	Department of Transportation
DSL	Domestic Substances List (Canada)
EC	Effective Concentration
ED	Effective Dose
EINECS	European Inventory of Existing Commercial Chemical Substances
ENCS	Japan - Existing and New Chemical Substances
EWC	European Waste Catalogue
EPA	Environmental Protective Agency
IARC	International Agency for Research on Cancer
LC	Lethal Concentration
LD	Lethal Dose
MAK	Maximum Workplace Concentration (Germany) "maximale Arbeitsplatz-Konzentration"
NDSL	Non-Domestic Substances List (Canada)
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PIN	Product Identification Number
PMCC	Pensky Marten Closed Cup
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SIMDUT	Système d'Information sur les Matières Dangereuses Utilisées au Travail
STEL	Short Term Exposure Limit
TCLP	Toxic Chemicals Leachate Program
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act TWA Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System
m	meter,
cm	centimeter,
mm	millimeter,
in	inch,
g	gram,
kg	kilogram,
lb	pound,
µg	microgram,
ppm	parts per million,
ft	feet*** End of SDS ***

*** End of SDS ***

Hazard statement

Flammable solid. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe the vapors. Use only outdoors or in a well ventilated area. Wear protective gloves. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

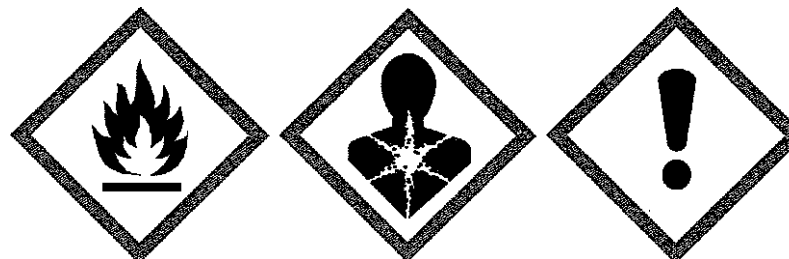
In case of fire: Use appropriate media for extinction. If exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

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

Disposal

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



Warning

Supplemental information

In case of fire, use carbon dioxide/foam/alcohol resistant foam/chemical powder for extinction.

Solvent vapors may form explosive air/vapor mixtures at room temperature. Vapors are heavier than air and may travel considerable distances along the ground to a source of ignition. Closed containers may burst or explode when exposed to extreme heat. Material and rags contaminated with solvents can be combustible and can spontaneously ignite.

FIRE FIGHTING MEASURES:

Use Class B extinguishing agents [Carbon dioxide, Dry chemical (ABC or BC), Foam]. Use water spray to minimize vapors. Use water spray to cool exposed containers. Move undamaged containers away from heat or flame, if possible. Water spray may be used to flush spills away from ignition sources.

Heavy streams of water, when directed into burning liquid, will cause frothing and spread of burning material. Water spray may be ineffective and may spread flames.

IN CASE OF SPILL:

Use adequate ventilation to reduce vapor concentrations. Avoid all ignition sources. Collect in closed metal containers. Absorb remainder with absorbent material.