

SAFETY DATA SHEET

1. Identification

Product identifier Maxx Kote Komatsu Industrial Yellow

Other means of identification

Product Code 8216, 9852, 8379

Recommended use Not available.

Manufacturer/Importer/Supplier/Distributor information

Company name Tifco Industries, Inc.

Address PO Box 40277
Houston, TX 77240
United States

Telephone 281-571-6000

Emergency phone number Chemtrec Phone 800-424-9300

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 2
	Gases under pressure	Liquefied gas
Health hazards	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1B
	Carcinogenicity	Category 1B
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Flammable aerosol. Contains gas under pressure; may explode if heated. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful 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. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.

Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	83.35% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 83.35% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ACETONE		67-64-1	20 to <30
BARIUM SULFATE		7727-43-7	10 to <20
PROPANE		74-98-6	10 to <20
PROPYLENE GLYCOL METHYL ETHER ACETATE		108-65-6	10 to <20
N-BUTANE		106-97-8	5 to <10
2-PENTANONE		107-87-9	1 to <5
TITANIUM DIOXIDE		13463-67-7	1 to <5
XYLENE		1330-20-7	1 to <5
4-Methyl-2-pentanone		108-10-1	0.1 to <1
ALIPHATIC SOLVENT MIXTURE		64741-41-9	0.1 to <1
ETHYLBENZENE		100-41-4	0.1 to <1
Other components below reportable levels			20 to <30

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
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	Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	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.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. 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	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions

In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards

Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing equipment. 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

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

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

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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. 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 in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Store in a well-ventilated place. 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
2-PENTANONE (CAS 107-87-9)	PEL	700 mg/m3	

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

Components	Type	Value	Form
4-Methyl-2-pentanone (CAS 108-10-1)	PEL	200 ppm	
		410 mg/m3	
ACETONE (CAS 67-64-1)	PEL	100 ppm	
		2400 mg/m3	
BARIUM SULFATE (CAS 7727-43-7)	PEL	1000 ppm	Respirable fraction.
		5 mg/m3	
ETHYLBENZENE (CAS 100-41-4)	PEL	15 mg/m3	Total dust.
		435 mg/m3	
PROPANE (CAS 74-98-6)	PEL	100 ppm	
		1800 mg/m3	
TITANIUM DIOXIDE (CAS 13463-67-7)	PEL	1000 ppm	Total dust.
		15 mg/m3	
XYLENE (CAS 1330-20-7)	PEL	435 mg/m3	
		100 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-PENTANONE (CAS 107-87-9)	STEL	150 ppm	
4-Methyl-2-pentanone (CAS 108-10-1)	STEL	75 ppm	
ACETONE (CAS 67-64-1)	TWA	20 ppm	
	STEL	750 ppm	
BARIUM SULFATE (CAS 7727-43-7)	TWA	500 ppm	Inhalable fraction.
	TWA	5 mg/m3	
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm	
N-BUTANE (CAS 106-97-8)	STEL	1000 ppm	
TITANIUM DIOXIDE (CAS 13463-67-7)	TWA	10 mg/m3	
XYLENE (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
2-PENTANONE (CAS 107-87-9)	TWA	530 mg/m3	
4-Methyl-2-pentanone (CAS 108-10-1)	STEL	150 ppm	
		300 mg/m3	
ACETONE (CAS 67-64-1)	TWA	75 ppm	
		205 mg/m3	
		50 ppm	
BARIUM SULFATE (CAS 7727-43-7)	TWA	590 mg/m3	Respirable.
		250 ppm	
ETHYLBENZENE (CAS 100-41-4)	STEL	10 mg/m3	Total
		545 mg/m3	
	TWA	125 ppm	
		435 mg/m3	
		100 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
N-BUTANE (CAS 106-97-8)	TWA	1900 mg/m ³ 800 ppm	
PROPANE (CAS 74-98-6)	TWA	1800 mg/m ³ 1000 ppm	

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6)	TWA	50 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
4-Methyl-2-pentanone (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
ACETONE (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
ETHYLBENZENE (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
XYLENE (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

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

Exposure guidelines**US - California OELs: Skin designation**

PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6) Can be absorbed through the skin.

Appropriate engineering controls

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

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

Skin protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. 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.

9. Physical and chemical properties**Appearance**

Physical state Liquid.

Form Aerosol. Liquefied gas.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point -305.68 °F (-187.6 °C) estimated

Initial boiling point and boiling range	-43.78 °F (-42.1 °C) estimated
Flash point	-156.0 °F (-104.4 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.9 % estimated
Flammability limit - upper (%)	12.8 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	2543.14 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	550 °F (287.78 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	7.20 lbs/gal
Explosive properties	Not explosive.
Flammability class	Flammable IA estimated
Heat of combustion (NFPA 30B)	22.21 kJ/g estimated
Oxidizing properties	Not oxidizing.
Percent volatile	66.71
Specific gravity	0.86
VOC	4.09 lbs/gal Regulatory 490.09 g/l Regulatory 2.92 lbs/gal Material 350.27 g/l Material

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	Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Acids. Strong oxidizing agents. Nitrates. Aluminum. Halogens. Phosphorus. Fluorine. Chlorine.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components	Species	Test Results
2-PENTANONE (CAS 107-87-9)		
Acute		
Oral		
LD50	Rat	3.73 g/kg
4-Methyl-2-pentanone (CAS 108-10-1)		
Acute		
Dermal		
LD50	Rabbit	> 16000 mg/kg
Inhalation		
LC50	Rat	8.2 mg/l, 4 Hours
Oral		
LD50	Rat	2080 mg/kg
ACETONE (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	> 15800 mg/kg
Inhalation		
LC50	Rat	76 mg/l, 4 Hours
Oral		
LD50	Mouse	3000 mg/kg
	Rat	5800 mg/kg
ETHYLBENZENE (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	17800 mg/kg
Oral		
LD50	Rat	3500 mg/kg
N-BUTANE (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
PROPANE (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Rat	> 1442.847 mg/l, 15 Minutes
XYLENE (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

Components	Species	Test Results
	Rat	3523 - 8600 mg/kg

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

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity May cause genetic defects.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

4-Methyl-2-pentanone (CAS 108-10-1)	2B Possibly carcinogenic to humans.
ETHYLBENZENE (CAS 100-41-4)	2B Possibly carcinogenic to humans.
TITANIUM DIOXIDE (CAS 13463-67-7)	2B Possibly carcinogenic to humans.
XYLENE (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

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

Aspiration hazard Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components	Species	Test Results
2-PENTANONE (CAS 107-87-9)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 1190 - 1290 mg/l, 96 hours
4-Methyl-2-pentanone (CAS 108-10-1)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 492 - 593 mg/l, 96 hours
ACETONE (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
BARIUM SULFATE (CAS 7727-43-7)		
Aquatic		
Crustacea	EC50	Tubificid worm (Tubifex tubifex) 28.61 - 38.03 mg/l, 48 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

Components	Species	Test Results
TITANIUM DIOXIDE (CAS 13463-67-7)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) > 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus heteroclitus) > 1000 mg/l, 96 hours
XYLENE (CAS 1330-20-7)		
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) 7.711 - 9.591 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)

2-PENTANONE	0.91
4-Methyl-2-pentanone	1.31
ACETONE	-0.24
ETHYLBENZENE	3.15
N-BUTANE	2.89
PROPANE	2.36
XYLENE	3.12 - 3.2

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. Contents under pressure. Do not puncture, incinerate or crush. 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. Do not re-use empty containers.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	UN1950, Aerosols, Flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols, Flammable
Transport hazard class(es)	
Class	2.1

Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1950
UN proper shipping name	Aerosols, Flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
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 Not established.

DOT



IATA; IMDG



General information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

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.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-PENTANONE (CAS 107-87-9)	Listed.
4-Methyl-2-pentanone (CAS 108-10-1)	Listed.
ACETONE (CAS 67-64-1)	Listed.
BARIUM SULFATE (CAS 7727-43-7)	Listed.
ETHYLBENZENE (CAS 100-41-4)	Listed.
N-BUTANE (CAS 106-97-8)	Listed.
PROPANE (CAS 74-98-6)	Listed.
XYLENE (CAS 1330-20-7)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

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.
XYLENE	1330-20-7	1 to <5
4-Methyl-2-pentanone	108-10-1	0.1 to <1
ETHYLBENZENE	100-41-4	0.1 to <1

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

4-Methyl-2-pentanone (CAS 108-10-1)
 ETHYLBENZENE (CAS 100-41-4)
 XYLENE (CAS 1330-20-7)

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

N-BUTANE (CAS 106-97-8)
 PROPANE (CAS 74-98-6)

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**

4-Methyl-2-pentanone (CAS 108-10-1)	6715
ACETONE (CAS 67-64-1)	6532

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

4-Methyl-2-pentanone (CAS 108-10-1)	35 %WV
ACETONE (CAS 67-64-1)	35 %WV

DEA Exempt Chemical Mixtures Code Number

4-Methyl-2-pentanone (CAS 108-10-1)	6715
ACETONE (CAS 67-64-1)	6532

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-PENTANONE (CAS 107-87-9)	Low priority
4-Methyl-2-pentanone (CAS 108-10-1)	Low priority
ACETONE (CAS 67-64-1)	Low priority

US state regulations**US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

4-Methyl-2-pentanone (CAS 108-10-1)
 ACETONE (CAS 67-64-1)

ALIPHATIC SOLVENT MIXTURE (CAS 64741-41-9)
ETHYLBENZENE (CAS 100-41-4)
N-BUTANE (CAS 106-97-8)
TITANIUM DIOXIDE (CAS 13463-67-7)
XYLENE (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

2-PENTANONE (CAS 107-87-9)
4-Methyl-2-pentanone (CAS 108-10-1)
ACETONE (CAS 67-64-1)
BARIUM SULFATE (CAS 7727-43-7)
ETHYLBENZENE (CAS 100-41-4)
N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)
TITANIUM DIOXIDE (CAS 13463-67-7)
XYLENE (CAS 1330-20-7)

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

2-PENTANONE (CAS 107-87-9)
4-Methyl-2-pentanone (CAS 108-10-1)
ACETONE (CAS 67-64-1)
BARIUM SULFATE (CAS 7727-43-7)
ETHYLBENZENE (CAS 100-41-4)
N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)
TITANIUM DIOXIDE (CAS 13463-67-7)
XYLENE (CAS 1330-20-7)

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

2-PENTANONE (CAS 107-87-9)
4-Methyl-2-pentanone (CAS 108-10-1)
ACETONE (CAS 67-64-1)
BARIUM SULFATE (CAS 7727-43-7)
ETHYLBENZENE (CAS 100-41-4)
N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)
TITANIUM DIOXIDE (CAS 13463-67-7)
XYLENE (CAS 1330-20-7)

US. Rhode Island RTK

4-Methyl-2-pentanone (CAS 108-10-1)
ACETONE (CAS 67-64-1)
ETHYLBENZENE (CAS 100-41-4)
N-BUTANE (CAS 106-97-8)
PROPANE (CAS 74-98-6)
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 - CRT: Listed date/Carcinogenic substance

4-Methyl-2-pentanone (CAS 108-10-1)	Listed: November 4, 2011
ETHYLBENZENE (CAS 100-41-4)	Listed: June 11, 2004
SILICA, CRYSTALLINE QUARTZ (CAS 14808-60-7)	Listed: October 1, 1988
TITANIUM DIOXIDE (CAS 13463-67-7)	Listed: September 2, 2011

US - California Proposition 65 - CRT: Listed date/Developmental toxin

4-Methyl-2-pentanone (CAS 108-10-1)	Listed: March 28, 2014
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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

Country(s) or region	Inventory name	On inventory (yes/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	No

*A "Yes" indicates that all components of this product comply 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	09-15-2016
Revision date	07-19-2019
Version #	02
HMIS® ratings	Health: 2* Flammability: 3 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 3 Instability: 0
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Revision information	Regulatory information: California Prop 65