SAFETY DATA SHEET

1. Identification

Product identifier Maxx Kote Doosan Beige

Other means of identification

Product Code 8161, 9826, 8315

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 Serious eye damage/eye irritation Category 2A

Germ cell mutagenicity

Cartegory 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

Hazardous to the aquatic environment,

long-term hazard

Category 3

Category 3

OSHA defined hazards Not classified.

Label elements

Health hazards



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.

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Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from **Storage**

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

82.76% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 82.76% 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
N-BUTANE		106-97-8	5 to <10
PROPYLENE GLYCOL METHYL ETHER ACETATE		108-65-6	5 to <10
TITANIUM DIOXIDE		13463-67-7	5 to <10
2-PENTANONE		107-87-9	1 to <5
XYLENE		1330-20-7	1 to <5
ALIPHATIC SOLVENT MIXTURE		64741-41-9	0.1 to <1
ETHYLBENZENE		100-41-4	0.1 to <1
TOLUENE		108-88-3	0.1 to <1
Other components below reportable	levels		10 to <20

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

4. First-aid measures

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON Inhalation CENTER or doctor/physician if you feel unwell.

Skin contact

Rinse skin with water/shower. Get medical attention if irritation develops and persists.

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

Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or Ingestion

poison control center. Rinse mouth.

Most important symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

General information

media

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.

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

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 Unsuitable extinguishing

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

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.

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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 PEL 700 mg/m3

US. OSHA Table Z-1 Limits for Air Components	Contaminants (29 CFR 1910.1000) Type	Value	Form
ACETONE (CAS 67-64-1)	PEL	200 ppm 2400 mg/m3	
1011 (OAO 01-04-1)	I LL	1000 ppm	
BARIUM SULFATE (CAS	PEL	5 mg/m3	Respirable fraction.
7727-43-7)		-	
-TIN/I DENIZENE (0.40	DE1	15 mg/m3	Total dust.
ETHYLBENZENE (CAS 100-41-4)	PEL	435 mg/m3	
100 41 4)		100 ppm	
PROPANE (CAS 74-98-6)	PEL	1800 mg/m3	
		1000 ppm	
TITANIUM DIOXIDE (CAS	PEL	15 mg/m3	Total dust.
13463-67-7) XYLENE (CAS 1330-20-7)	PEL	435 mg/m3	
(172142 (67/6 1666 26 7)	1 22	100 ppm	
US. OSHA Table Z-2 (29 CFR 1910	.1000)		
Components	Туре	Value	
TOLUENE (CAS 108-88-3)	Ceiling	300 ppm	
,	TWA	200 ppm	
US. ACGIH Threshold Limit Values	5		
Components	Туре	Value	Form
2-PENTANONE (CAS	STEL	150 ppm	
107-87-9) ACETONE (CAS 67-64-1)	STEL	750 ppm	
ACE TONE (CAS 07-04-1)	TWA	500 ppm	
BARIUM SULFATE (CAS	TWA	5 mg/m3	Inhalable fraction.
7727-43-7)			
ETHYLBENZENE (CAS	TWA	20 ppm	
100-41-4) N-BUTANE (CAS 106-97-8)	STEL	1000 ppm	
TITANIUM DIOXIDE (CAS	TWA	10 mg/m3	
13463-67-7)		· ·	
TOLUENE (CAS 108-88-3)	TWA	20 ppm	
XYLENE (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
US. NIOSH: Pocket Guide to Chem		Value	Form
Components	Туре	Value	FOIIII
2-PENTANONE (CAS 107-87-9)	TWA	530 mg/m3	
101 01-01		150 ppm	
ACETONE (CAS 67-64-1)	TWA	590 mg/m3	
		250 ppm	
BARIUM SULFATE (CAS 7727-43-7)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
ETHYLBENZENE (CAS 100-41-4)	STEL	545 mg/m3	
		125 ppm	
	TWA	435 mg/m3	
NI DI ITANIE (OAO 400 07 0)	T\A/A	100 ppm	
N-BUTANE (CAS 106-97-8)	TWA	1900 mg/m3	
PROPANE (CAS 74-98-6)	TWA	800 ppm 1800 mg/m3	
NOT AIRE (OAO 14-90-0)	LVVA	1000 mg/ms	
TOLUENE (CAS 108-88-3)	STEL	560 mg/m3	
/		- 5	

JS. NIOSH: Pocket Guide to Chemical Hazards				
Components	Туре	Value	Form	
		150 ppm		
	TWA	375 mg/m3		

US. Workplace Environmental Exposure Level (WEEL) Guides

Components Type Value

TWA

PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6)

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time	
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	*	
TOLUENE (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*	
	0.03 mg/l	Toluene	Urine	*	
	0.02 mg/l	Toluene	Blood	*	
XYLENE (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*	

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

Exposure guidelines

US - California OELs: Skin designation

PROPYLENE GLYCOL METHYL ETHER ACETATE Can be absorbed through the skin.

(CAS 108-65-6)

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.

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.

100 ppm

50 ppm

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 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

considerations

Physical state Liquid.

Form Aerosol. Liquefied gas.

ColorNot available.OdorNot available.Odor thresholdNot available.

рΗ Not available.

-305.68 °F (-187.6 °C) estimated Melting point/freezing point Initial boiling point and boiling -43.78 °F (-42.1 °C) estimated

range

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

(%)

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available.

Vapor pressure 2772.19 hPa estimated

Not available. Vapor density Not available. Relative density

Solubility(ies)

Not available. Solubility (water) Partition coefficient Not available.

(n-octanol/water)

550 °F (287.78 °C) estimated **Auto-ignition temperature**

Decomposition temperature Not available. **Viscosity** Not available.

Other information

7.32 lbs/gal Density Not explosive. **Explosive properties**

Flammability class Flammable IA estimated Heat of combustion (NFPA

30B)

21.71 kJ/g estimated

Oxidizing properties Not oxidizing.

Percent volatile 65.25 Specific gravity 0.88

VOC 4.04 lbs/gal Regulatory

> 483.61 g/l Regulatory 343.36 g/l Material 2.87 lbs/gal 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.

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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.

Acute toxicity	Narcotic effects.	
Components	Species	Test Results
2-PENTANONE (CAS 107-87-	-9)	
<u>Acute</u>		
Oral		
LD50	Rat	3.73 g/kg
ACETONE (CAS 67-64-1)		
<u>Acute</u>		
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 100-4	11-4)	
<u>Acute</u>		
Dermal	B 11.5	47000 "
LD50	Rabbit	17800 mg/kg
Oral	5 .	0500 #
LD50	Rat	3500 mg/kg
N-BUTANE (CAS 106-97-8)		
<u>Acute</u>		
Inhalation	Maura	C00 mag//, O. Haurra
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
PROPANE (CAS 74-98-6)		
<u>Acute</u>		
Inhalation LC50	Rat	> 1442.847 mg/l, 15 Minutes
	rat	> 1442.047 High, 13 Milliates
TOLUENE (CAS 108-88-3)		
<u>Acute</u> Dermal		
LD50	Rabbit	12124 mg/kg
LDOU	Kabbit	14.1 ml/kg
Inhalation		14.1 mi/kg
LC50	Mouse	5320 ppm, 8 Hours
2000	Wouse	400 ppm, 24 Hours
	Dot	**
	Rat	26700 ppm, 1 Hours
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
Oral		(·
LD50	Rat	2.6 g/kg

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Version #: 02 Revision date: 09-15-2016 Issue date: 01-29-2016

Components Species Test Results

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

Rat 3523 - 8600 mg/kg

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

Serious eye damage/eye

Causes serious eye irritation.

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

ETHYLBENZENE (CAS 100-41-4)
2B Possibly carcinogenic to humans.
TITANIUM DIOXIDE (CAS 13463-67-7)
2B Possibly carcinogenic to humans.

TOLUENE (CAS 108-88-3)

XYLENE (CAS 1330-20-7)

3 Not classifiable as to carcinogenicity to humans.

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 toxicityComponents 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 LC50 Fish Fathead minnow (Pimephales promelas) 1190 - 1290 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 4740 - 6330 mg/l, 96 hours

(Oncorhynchus mykiss)

Material name: Doosan Beige 8161

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

Components		Species	Test Results
BARIUM SULFATE (C.	AS 7727-43-7)		
Aquatic			
Crustacea	EC50	Tubificid worm (Tubifex tubifex)	28.61 - 38.03 mg/l, 48 hours
ETHYLBENZENE (CA	S 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
TITANIUM DIOXIDE (C	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
TOLUENE (CAS 108-8	38-3)		
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 (CAS 1330-2	0-7)		
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.

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

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

2-PENTANONE	0.91
ACETONE	-0.24
ETHYLBENZENE	3.15
N-BUTANE	2.89
PROPANE	2.36
TOLUENE	2.73
XYLENE	3.12 - 3.2

No data available. Mobility in soil

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).

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

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 provisionsN82Packaging exceptions306Packaging non bulkNonePackaging bulkNone

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

information

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only

Allowed.

IMDG

UN number UN1950

UN proper shipping name A

Transport hazard class(es)

Aerosols, Flammable

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 No

Not established.

Annex II of MARPOL 73/78 and

the IBC Code

DOT



Material name: Doosan Beige 8161

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.
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.
TOLUENE (CAS 108-88-3)	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 No

chemical

SARA 313 (TRI reporting)

_	Chemical name	CAS number	% by wt.	
	XYLENE	1330-20-7	1 to <5	
	ETHYLBENZENE	100-41-4	0.1 to <1	
	TOLUENE	108-88-3	0.1 to <1	

Other federal regulations

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

ETHYLBENZENE (CAS 100-41-4) TOLUENE (CAS 108-88-3)

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)

XYLENE (CAS 1330-20-7)

(SDWA)

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

ACETONE (CAS 67-64-1) 6532 TOLUENE (CAS 108-88-3) 6594

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

ACETONE (CAS 67-64-1) 35 %WV TOLUENE (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

ACETONE (CAS 67-64-1) 6532 TOLUENE (CAS 108-88-3) 594

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

2-PENTANONE (CAS 107-87-9) 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))

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)

TOLUENE (CAS 108-88-3)

XYLENE (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

2-PENTANONE (CAS 107-87-9)

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)

TOLUENE (CAS 108-88-3) XYLENE (CAS 1330-20-7)

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

2-PENTANONE (CAS 107-87-9)

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)

TOLUENE (CAS 108-88-3)

XYLENE (CAS 1330-20-7)

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

2-PENTANONE (CAS 107-87-9)

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)

TOLUENE (CAS 108-88-3)

XYLENE (CAS 1330-20-7)

US. Rhode Island RTK

ACETONE (CAS 67-64-1)

ETHYLBENZENE (CAS 100-41-4)

N-BUTANE (CAS 106-97-8)

PROPANE (CAS 74-98-6)

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

CARBON BLACK (CAS 1333-86-4)
ETHYL ALCOHOL (CAS 64-17-5)
Listed: April 29, 2011
Listed: July 1, 1988
ETHYLBENZENE (CAS 100-41-4)
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

Inventory name

ETHYL ALCOHOL (CAS 64-17-5) Listed: October 1, 1987 TOLUENE (CAS 108-88-3) Listed: January 1, 1991 US - California Proposition 65 - CRT: Listed date/Female reproductive toxin TOLUENE (CAS 108-88-3) Listed: August 7, 2009

International Inventories

Country(s) or region

Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

^{*}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).

Toxic Substances Control Act (TSCA) Inventory

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

 Issue date
 01-29-2016

 Revision date
 09-15-2016

Version # 02

United States & Puerto Rico

HMIS® ratings Health: 2*

Flammability: 3 Physical hazard: 0

NFPA ratings Health: 2

Flammability: 3 Instability: 0

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Material name: Doosan Beige 8161

Yes

On inventory (yes/no)*