

Safety Data Sheet

HEMPEL'S AER KIT 76 ORANGE



Conforms to ANSI Z400.1-2010 Standard - HCS 2012

Protective Clothing	General Hazard	DOT

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : HEMPEL'S
AER KIT 76 ORANGE

Product identity : 610JX0L990

Product type : (Aerosol paint)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Field of application : buildings and metal industry.

Identified uses : Industrial/Professional use

TSCA : **Unless otherwise stated. All components are listed or exempted.**

1.3 Details of the supplier of the safety data sheet

Company details : HEMPEL (USA), Inc.
600 Conroe Park North Drive
Conroe, Texas 77303
Toll free: (800) 678-6641,
if outside area codes 713, 281, 409, 936
Regular phone number: (936) 523-6000
E-mail Hempel@Hempel.com

HEMPEL (USA), Inc.
2728 Empire Central
Dallas, TX 75235
Phone number: 1-214-353-1600
E-mail: hempel@hempel.com

1.4 Emergency telephone number (with hours of operation)

For Transportation Emergencies : CHEMTREC: **1-800-424-9300** (Toll-free in the U.S., Canada and the U.S. Virgin Islands) **703-527-3887**
(24 hours)
For calls originating elsewhere (Collect calls are accepted). Contract number: CCN10384
To preserve the effectiveness of arrangements for providing accurate and timely emergency response information, the basic identifying information (shipper name or contract number) must be included on shipping papers.
If the purchaser of this product is going to be shipping this product to other locations, the purchaser must arrange for its own Emergency Information Provider to respond to transport incidents. Hempel's 24 hour response contract does not cover non-Hempel shipments.

For all other information : In USA toll free calling available: 1-800- 678-6641 or (936)-523-6000
(8 AM - 5 PM CST) See Section 4 of the safety data sheet (first aid measures).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Classification : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

2.2 Label elements

Hazard pictograms :



Signal word : Danger

SECTION 2: Hazards identification

Hazard statements :	H222 - Extremely flammable aerosol. H280 - Contains gas under pressure; may explode if heated. H319 - Causes serious eye irritation. H317 - May cause an allergic skin reaction. H351 - Suspected of causing cancer. H336 - May cause drowsiness or dizziness.
Precautionary statements :	
Prevention :	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Pressurized container: Do not pierce or burn, even after use.
Response :	IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical 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 attention.
Storage :	Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.
Disposal :	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements :	Avoid contact with skin and clothing. Wash thoroughly after handling.

2.3 Other hazards

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

Product definition :	Mixture
Physical state :	Liquid. [Aerosol.]

Product/ingredient name	Identifiers	%	GHS Classification
acetone	67-64-1	≥25 - ≤50	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
titanium dioxide	13463-67-7	≥10 - ≤25	Not classified.
tert-butyl acetate	540-88-5	≥10 - ≤25	FLAMMABLE LIQUIDS - Category 2
propane	74-98-6	≥5 - ≤10	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas SIMPLE ASPHYXIANTS
2-butoxyethanol	111-76-2	≥3 - ≤5	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
butane	106-97-8	≥3 - ≤5	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas SIMPLE ASPHYXIANTS
4-chloro-trifluorotoluene	98-56-6	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-methoxy-1-methylethyl acetate	108-65-6	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-methoxy-2-propanol	107-98-2	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

SECTION 3: Composition/information on ingredients

Solvent naphtha (petroleum), light arom.	64742-95-6	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-butanone oxime	96-29-7	≤0.3	ASPIRATION HAZARD - Category 1 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1
4-methylpentan-2-one	108-10-1	≤0.3	CARCINOGENICITY - Category 2 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4: First aid measures

4.1 Description of first aid measures

General :	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).
Eye contact :	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek immediate medical attention.
Inhalation :	Remove to fresh air. Keep person warm and at rest. If unconscious, place in recovery position and seek medical advice.
Skin contact :	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion :	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.
Protection of first-aiders :	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact :	Causes serious eye irritation.
Inhalation :	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact :	Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
Ingestion :	Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness
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SECTION 4: First aid measures

Inhalation :	Adverse symptoms may include the following: respiratory tract irritation coughing nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact :	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion :	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician :	Not applicable.
Specific treatments :	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media :	Recommended: alcohol resistant foam, CO ₂ , powders, water spray. Not to be used: waterjet.
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5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture :	Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products :	Decomposition products may include the following materials: carbon oxides halogenated compounds carbonyl halides metal oxide/oxides

5.3 Advice for firefighters

When heated, the pressure inside the container will increase and may lead to the risk of an explosion. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilled product.

SECTION 6: Accidental release measures

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Keep out of the reach of children. Keep away from sources of ignition - No smoking.

7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.
This product may be applied using several application techniques and methods of handling may be different for each. Application techniques include [but are not limited to] brushing, rolling, and spray application [conventional, HPLV, airless, pleural component or aerosol can]. Avoid the breathing of vapors and, if spraying, do not breath spray mist or aerosols.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Product/ingredient name	Exposure limit values
acetone	ACGIH TLV (United States, 3/2018). TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 250 ppm 10 hours. TWA: 590 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 1000 ppm 8 hours. TWA: 2400 mg/m ³ 8 hours.
titanium dioxide	OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2018). TWA: 10 mg/m ³ 8 hours.
tert-butyl acetate	NIOSH REL (United States, 10/2016). TWA: 950 mg/m ³ 10 hours. TWA: 200 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 950 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2018). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
propane	NIOSH REL (United States, 10/2016). TWA: 1800 mg/m ³ 10 hours. TWA: 1000 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 1800 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours. ACGIH TLV (United States, 3/2018). Oxygen Depletion [Asphyxiant]. Explosive potential.
2-butoxyethanol	ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 5 ppm 10 hours.

SECTION 8: Exposure controls/personal protection

butane	<p>TWA: 24 mg/m³ 10 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 1900 mg/m³ 10 hours. TWA: 800 ppm 10 hours. ACGIH TLV (United States, 3/2018). Explosive potential. STEL: 1000 ppm 15 minutes.</p>
2-methoxy-1-methylethyl acetate	<p>AIHA WEEL (United States, 7/2018). TWA: 50 ppm 8 hours.</p>
1-methoxy-2-propanol	<p>ACGIH TLV (United States, 3/2018). STEL: 369 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 184 mg/m³ 8 hours. TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016). STEL: 540 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 360 mg/m³ 10 hours. TWA: 100 ppm 10 hours.</p>
Solvent naphtha (petroleum), light arom.	<p>ACGIH TLV (United States). TWA Tentative: 25 ppm 8 hours.</p>
2-butanone oxime	<p>AIHA WEEL (United States, 7/2018). Skin sensitizer. TWA: 10 ppm 8 hours.</p>
4-methylpentan-2-one	<p>ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes. NIOSH REL (United States, 10/2016). TWA: 50 ppm 10 hours. TWA: 205 mg/m³ 10 hours. STEL: 75 ppm 15 minutes. STEL: 300 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 410 mg/m³ 8 hours.</p>

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls

Appropriate engineering controls

Provide local exhaust and general ventilation systems to maintain airborne concentrations below OSHA, ACGIH, and manufacturer recommended exposure limits. Local exhaust ventilation is preferred because it prevents contaminant dispersion into work areas by controlling it at its source. Use local and general exhaust ventilation to effectively remove and prevent buildup of mists/vapors/fumes generated from the handling of this product.

Note: Local exhaust ventilation is designed to capture an emitted contaminant at or near its source, before the contaminant has a chance to disperse into the workplace air. General exhaust ventilation, also called dilution ventilation, is different from local exhaust ventilation because instead of capturing emissions at their source and removing them from the air, general exhaust ventilation allows the contaminant to be emitted into the workplace air and then dilutes the concentration of the contaminant to an acceptable level (e.g., to the PEL or below).

Individual protection measures

- General : Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.
- Hygiene measures : Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.
- Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

SECTION 8: Exposure controls/personal protection

Hand protection :	<p>Wear chemical-resistant gloves in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.</p> <p>Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:</p> <p>Recommended: Silver Shield / Barrier / 4H gloves, polyvinyl alcohol (PVA), Viton®, nitrile rubber May be used: butyl rubber, neoprene rubber Short term exposure: natural rubber (latex), polyvinyl chloride (PVC)</p>
Body protection :	<p>Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.</p> <p>Wear suitable protective clothing. Always wear protective clothing when spraying.</p>
Respiratory protection :	<p>If working areas have insufficient ventilation, wear half or totally covering mask equipped with gas filter of type Organic Vapor, when grinding use particle filter of type P95, P99 or P100. When spraying use a combined filter (organic vapor / HEPA or organic vapor / P100 type). Be sure to use approved/certified respirator or equivalent. Always wear an air-fed respirator when spraying in a continuous and prolonged work situation (e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter).</p> <p>This product contains low-boiling point liquids. Any respiratory protective equipment should be air-fed or organic vapor filter (Type AX).</p>

Protective clothing (pictograms) :



Note: Application of paint products by spraying requires additional safety precautions: Full body suit, Full face respirator with air supplied.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state :	Aerosol.
Odor :	Solvent-like
pH :	Testing not relevant or not possible due to nature of the product.
Melting point/freezing point :	-94.7°C This is based on data for the following ingredient: acetone
Boiling point/boiling range :	Testing not relevant or not possible due to nature of the product.
Flash point :	May be combustible at high temperature.
Evaporation rate :	Testing not relevant or not possible due to nature of the product.
Flammability :	May be combustible at high temperature.
Upper/lower flammability or explosive limits :	0.9 - 13.74 vol %
Vapor pressure :	23.995 kPa This is based on data for the following ingredient: acetone
Vapor density :	Testing not relevant or not possible due to nature of the product.
Relative density :	1.02 g/cm ³
Solubility(ies) :	Easily soluble in the following materials: cold water and hot water.
Partition coefficient (LogKow) :	Testing not relevant or not possible due to nature of the product.
Auto-ignition temperature :	Testing not relevant or not possible due to nature of the product.
Decomposition temperature :	Testing not relevant or not possible due to nature of the product.
Viscosity :	Testing not relevant or not possible due to nature of the product.
Explosive properties :	Explosive in the presence of the following materials or conditions: oxidizing materials and reducing materials.
Oxidizing properties :	Testing not relevant or not possible due to nature of the product.

SECTION 9: Physical and chemical properties

9.2 Other information

Aerosol product

Type of aerosol	Spray
Heat of combustion	17.95 kJ/g
Solvent(s) % by weight (Included exempt solvent(s)):	72.2 % (w/w)
Water % by weight :	Weighted average: 0 %
VOC content (Coatings) :	1.8 lbs/gal (216.1 g/l)
VOC content (Regulatory) :	4.67 lbs/gal (559.1 g/l)
TOC Content (Volatile) :	Weighted average: 382 g/l
Solvent Gas :	Weighted average: 0.262 m ³ /l

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame).

10.5 Incompatible materials

Extremely reactive or incompatible with the following materials: alkalis.
Highly reactive or incompatible with the following materials: oxidizing materials and acids.
Reactive or incompatible with the following materials: reducing materials.

10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:
Decomposition products may include the following materials: carbon oxides halogenated compounds carbonyl halides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Exposure to component solvent vapor concentrations may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
acetone	LD50 Oral	Rat	5800 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.8 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
tert-butyl acetate	LD50 Oral	Rat	4100 mg/kg	-
2-butoxyethanol	LC50 Inhalation Dusts and mists	Rat	2.2 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	300 - 2000 mg/kg	-
butane	LC50 Inhalation Vapor	Rat	658000 mg/m ³	4 hours
4-chloro-trifluorotoluene	LC50 Inhalation Vapor	Rat	33 mg/l	4 hours
	LD50 Dermal	Rat	>3300 mg/kg	-
	LD50 Oral	Rat	13000 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	4016 mg/kg	-
Solvent naphtha (petroleum), light arom.	LC50 Inhalation Vapor	Rat	6193 mg/m ³	4 hours
	LD50 Dermal	Rabbit	3160 mg/kg	-
	LD50 Oral	Rat	3492 mg/kg	-
2-butanone oxime	LD50 Dermal	Rabbit	1001 mg/kg	-
	LD50 Oral	Rat	930 mg/kg	-
4-methylpentan-2-one	LD Dermal	Rabbit	>3 g/kg	-

Acute toxicity estimates

Route	ATE value
Oral	11459.38 mg/kg
Dermal	25210.65 mg/kg
Inhalation (vapors)	252.11 mg/l
Inhalation (dusts and mists)	50.42 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
acetone	Eyes - Mild irritant	Human	-	186300 parts per million
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent
tert-butyl acetate	Eyes - Mild irritant	Rabbit	-	100 microliters
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	-
	Skin - Mild irritant	Rabbit	-	-
4-chloro-trifluorotoluene	Skin - Irritant	Rabbit	-	-
	Eyes - Irritant	Rabbit	-	-
2-methoxy-1-methylethyl acetate	Respiratory - Mild irritant	Rabbit	-	-
	Eyes - Mild irritant	Rabbit	-	-
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams
Solvent naphtha (petroleum), light arom.	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters
	Respiratory - Mild irritant	Rabbit	-	-
	Skin - Moderate irritant	Rabbit	-	-
2-butanone oxime	Eyes - Severe irritant	Rabbit	-	100 microliters
4-methylpentan-2-one	Eyes - Moderate irritant	Rabbit	-	24 hours 100 microliters
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams

Sensitizer

Product/ingredient name	Route of exposure	Species	Result
4-chloro-trifluorotoluene	skin	Mouse	Sensitizing

Carcinogen Classification

SECTION 11: Toxicological information

Product/ingredient name	IARC	NTP	OSHA
titanium dioxide	2B	-	-
2-butoxyethanol	3	-	-
4-methylpentan-2-one	2B	-	-

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
acetone	Category 3	Not applicable.	Narcotic effects
4-chloro-trifluorotoluene	Category 3	Not applicable.	Respiratory tract irritation
2-methoxy-1-methylethyl acetate	Category 3	Not applicable.	Narcotic effects
1-methoxy-2-propanol	Category 3	Not applicable.	Narcotic effects
Solvent naphtha (petroleum), light arom.	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
4-methylpentan-2-one	Category 3	Not applicable.	Respiratory tract irritation

Aspiration hazard

Product/ingredient name	Result
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitization : Contains 2-butanone oxime. May produce an allergic reaction.

Other information : No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses. Harmful to aquatic life with long lasting effects.

When spilled, this product may act as an oil, causing a film, sheen, emulsion, or sludge at or beneath the surface of a body of water. Oils of any kind can cause: (a) drowning of waterfowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility; (b) lethal effect on fish by coating gill surfaces, preventing respiration; (c) potential fish kills resulting from alteration in biochemical oxygen demand; (d) asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom; and (e) adverse aesthetic effects of fouled shoreline and beaches.

Product/ingredient name	Result	Species	Exposure
acetone	Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.016 ml/L Fresh water Chronic NOEC 0.1 ml/L Fresh water	Algae - Ulva pertusa Crustaceans - Daphniidae Daphnia - Daphnia magna - Neonate	96 hours 21 days 21 days
titanium dioxide	Acute LC50 >100 mg/l	Daphnia	48 hours
2-butoxyethanol	Acute LC50 >100 mg/l	Fish	96 hours
	Acute EC50 911 mg/l	Algae	72 hours
	Acute EC50 1550 mg/l	Daphnia	48 hours
	Acute LC50 1474 mg/l	Fish	96 hours
4-chloro-trifluorotoluene	Acute LC50 2 mg/l	Daphnia	48 hours
	Acute LC50 3 mg/l	Fish	96 hours
2-methoxy-1-methylethyl acetate	Acute LC50 100 - 180 mg/l	Fish	96 hours
1-methoxy-2-propanol	Acute EC50 1000 mg/l	Algae - Pseudokirchneriella subcapitata (green algae)	7 days
	Acute EC50 23300 mg/l	Daphnia - Daphnia magna (Water flea)	48 hours
	Acute LC50 6812 mg/l	Fish - Leuciscus idus	96 hours
Solvent naphtha (petroleum), light arom.	Acute EC50 2.6 mg/l	Algae - Pseudokirchneriella subcapitata (green algae)	96 hours
	Acute EC50 3.2 mg/l	Daphnia	48 hours
	Acute LC50 9.22 mg/l	Fish - Oncorhynchus mykiss (rainbow trout)	96 hours
4-methylpentan-2-one	Chronic NOEC 7800 - 39000 µg/l Fresh water Chronic NOEC 168 mg/l Fresh water	Daphnia - Daphnia magna Fish - Pimephales promelas - Embryo	21 days 33 days

SECTION 12: Ecological information

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-butoxyethanol	-	90 % - Readily - 28 days	-	-
	-	32 % - 5 days	756 mg/kg BOD ₅	-
	-	32 % - 28 days	2379000 mg/kg COD	-
4-chloro-trifluorotoluene	OECD 301D 301D Ready	19.2 % - Not readily - 28 days	-	-
	Biodegradability - Closed Bottle Test			
2-methoxy-1-methylethyl acetate	OECD 301F Ready	83 % - Readily - 28 days	-	-
	Biodegradability - Manometric			
	Respirometry Test			
1-methoxy-2-propanol	OECD 301E Ready	96 % - Readily - 28 days	-	-
	Biodegradability - Modified OECD			
	Screening Test			
Solvent naphtha (petroleum), light arom.	OECD 301F Ready	78 % - Readily - 28 days	-	-
	Biodegradability - Manometric			
	Respirometry Test			
	-	>70 % - Readily - 28 days	-	-
	-	>60 % - Readily - 28 days	-	-
4-methylpentan-2-one	-	84 % - 14 days	100 mg/l	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily
4-chloro-trifluorotoluene	-	-	Not readily
2-methoxy-1-methylethyl acetate	-	-	Readily
1-methoxy-2-propanol	-	-	Readily
Solvent naphtha (petroleum), light arom.	-	-	Readily
4-methylpentan-2-one	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
acetone	-0.23	-	low
tert-butyl acetate	1.64	-	low
propane	1.09	-	low
2-butoxyethanol	0.81	-	low
butane	2.89	-	low
4-chloro-trifluorotoluene	3.7	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low
1-methoxy-2-propanol	<1	<100	low
Solvent naphtha (petroleum), light arom.	-	10 - 2500	high
2-butanone oxime	0.63	2.5 - 5.8	low
4-methylpentan-2-one	1.31	2	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}): No known data available in our database.

Mobility: No known data available in our database.

12.5 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7 and Section 8 for additional handling information and protection of employees.






The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Acetone (l); 2-Propanone (l)	67-64-1	Listed	U002

SECTION 14: Transport information

Transport may take place according to national regulation or DOT for transport by road and by train, IMDG for transport by sea, IATA for Air shipment. Refer to specific Dangerous Goods Transport requirements under 49CFR, ICAO and IATA.

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
DOT Code	UN1950	AEROSOLS	2.1 - 	-	No.	ERG : 126 Reportable quantity (acetone, xylene) 13440.9 lbs / 6102.2 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Code	UN1950	AEROSOLS	2.1 - 	-	No.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
SCT Code	UN1950	AEROSOLS	2.1 - 	-	No.	-
IMDG Code	UN1950	AEROSOLS	2.1 - 	-	No.	-
IATA Code	UN1950	AEROSOLS	2.1 - 	-	No.	-

Code : Classification
PG* : Packing group
Env.* : Environmental hazards

14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations :

All components are listed or exempted.

Clean Water Act (CWA) 307: benzene; ethylbenzene; toluene; zinc oxide; zinc bis(2-ethylhexanoate)

Clean Water Act (CWA) 311: tert-butyl acetate; benzene; ethylbenzene; xylene; toluene

Clean Air Act (CAA) 112 regulated flammable substances: butane; propane

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Listed

Product/ingredient name	CAS number	Concentration
cumene	98-82-8	0.017079
benzene	71-43-2	0.0020433
ethylbenzene	100-41-4	0.084146
xylene	1330-20-7	0.34356
toluene	108-88-3	0.0033872
cobalt	Sec. 7440-48-4	0.0069381
cobalt bis(2-ethylhexanoate)	136-52-7	0.037581
2-(2-butoxyethoxy)ethanol	112-34-5	0.0028027
4-methylpentan-2-one	108-10-1	0.10685
2-(2-butoxyethoxy)ethanol	112-34-5	0.015949

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 311/312 Classification :

FLAMMABLE AEROSOLS - Category 1

GASES UNDER PRESSURE - Compressed gas

EYE IRRITATION - Category 2A

SKIN SENSITIZATION - Category 1

CARCINOGENICITY - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

HNOC - Defatting irritant

		Classification
acetone	≥25 - ≤50	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
tert-butyl acetate	≥10 - ≤25	FLAMMABLE LIQUIDS - Category 2 HNOC - Defatting irritant
propane	≥5 - ≤10	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas SIMPLE ASPHYXIANTS
2-butoxyethanol	≥3 - ≤5	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
butane	≥3 - ≤5	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas SIMPLE ASPHYXIANTS
4-chloro-trifluorotoluene	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Formaldehyde, polymer with cyclohexanone	≥1 - ≤3	COMBUSTIBLE DUSTS
2-methoxy-1-methylethyl acetate	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-methoxy-2-propanol	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Solvent naphtha (petroleum), light arom.	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-butanone oxime	≤0.3	ASPIRATION HAZARD - Category 1 ACUTE TOXICITY (dermal) - Category 4 SERIOUS EYE DAMAGE - Category 1
4-methylpentan-2-one	≤0.3	SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

SECTION 15: Regulatory information

	(Respiratory tract irritation) - Category 3 HNOC - Defatting irritant
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SARA 313 : SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Form R - Reporting requirements :

Product/ingredient name	CAS number	Concentration
2-butoxyethanol	111-76-2	3 - 5

Supplier notification :

Product/ingredient name	CAS number	Concentration
2-butoxyethanol	111-76-2	3 - 5

State regulations :

Connecticut Carcinogen Reporting: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: TITANIUM DIOXIDE; TIN DIOXIDE DUST; TERT-BUTYL ACETATE; 2-BUTOXYETHANOL; BUTYL CELLOSOLVE; BUTANE; PROPANE; PROPYLENE GLYCOL METHYL ETHER; PROPYLENE GLYCOL MONOMETHYL ETHER; ACETONE
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: The following components are listed: TITANIUM DIOXIDE; TITANIUM OXIDE (TiO₂); tert-BUTYL ACETATE; ACETIC ACID, 1,1-DIMETHYLETHYL ESTER; 2-BUTOXY ETHANOL; BUTYL CELLOSOLVE; METHYL ISOBUTYL KETONE; 2-PENTANONE, 4-METHYL-; BUTANE; PROPANE; PROPYLENE GLYCOL MONOMETHYL ETHER; 1-METHOXY-2-PROPANOL; ACETONE; 2-PROPANONE
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: The following components are listed: tert-Butyl acetate; Methyl isobutyl ketone; Hexone; Acetone; 2-Propanone
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: The following components are listed: TITANIUM OXIDE; ACETIC ACID, 1,1-DIMETHYLETHYL ESTER; ETHANOL, 2-BUTOXY-; 2-PENTANONE, 4-METHYL-; BUTANE; PROPANE; 2-PROPANOL, 1-METHOXY-; 2-PROPANONE
Rhode Island Hazardous Substances: None of the components are listed.

California Prop. 65 PFF : **WARNING:** This product can expose you to chemicals including Methyl isobutyl ketone and Benzene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Titanium dioxide, Ethylbenzene, Cumene, Cobalt metal powder and Silica, crystalline, which are known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Product/ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
titanium dioxide	Yes.	No.		
4-methylpentan-2-one	Yes.	Yes.		
ethylbenzene	Yes.	No.	Yes.	
cumene	Yes.	No.		
cobalt	Yes.	No.		
toluene	No.	Yes.		Yes.
benzene	Yes.	Yes.	Yes.	Yes.
respirable quartz	Yes.	No.		

SECTION 16: Other information

Remarks : Note: In USA, consult Code of Federal Regulations, Title 29, Labor, Parts 1910 and 1915 concerning occupational safety and health standards and regulations, as well as any other applicable Federal, State or local regulations that apply to safe practices in coating operations.

Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD is TOXIC.

Validation : Validated by US - AI Pliodzinskas on 27 November 2019

GHS Classification

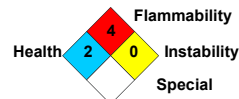
Procedure used to derive the classification.

Classification	Justification
FLAMMABLE AEROSOLS - Category 1 GASES UNDER PRESSURE - Compressed gas EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	On basis of test data On basis of test data Calculation method Calculation method Calculation method Calculation method

Hazardous Material Information System (U.S.A.)

Health	* 2
Fire hazard	0
Physical hazards	3
Personal protection	X

National Fire Protection Association (U.S.A.)



Personal Protective Equipment (PPE) shown in this section is a suggestion. Since conditions vary from one work location to another consult the facility safety & health program. Customer or end user is responsible to evaluate worker exposure conditions at the site of application and determine the appropriate PPE suitable for workers at that particular facility or location.

Abbreviations and acronyms :

ANSI = American National Standards Institute

HCS = Hazardous Communication System

TSCA = Toxic Substances Control Act

CFR = Code of federal Regulations

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

OSHA = United States Occupational Health and Safety Administration

NIOSH = National Institute for Occupational Safety and Health

ACGIH = American Conference of Industrial Hygienists

IARC = International Agency for Research on Cancer.

NTP = National Toxicology Program

ATE = Acute Toxicity Estimate

OECD = Organisation for Economic Co-operation and Development

BCF = Bioconcentration Factor

DOT = United States Department of Transportation

ERG = Emergency Response Guide

TDG = Transport of Dangerous Goods, Canada

SCT = Transportation & Communications Ministry, Mexico

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

SARA = Superfund Amendments Reauthorization Act

EPCRA = Emergency Planning and Community Right to Know Act

Notice to reader

 Indicates information that has changed from previously issued version.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.