



SAFETY DATA SHEET

Section 1. Identification

GHS product identifier : 1001 2K Midcoat Carrier
SDS code : 13811, 13812, 13814

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

Identified uses
Industrial use
Uses advised against
Consumer use

Manufacturer/Supplier : Autokote Systems, LLC
121 Business Circle
Thomasville, GA 31792

800-801-5913

Mailing Address
P.O. Box 3246
Thomasville, GA 31799

Emergency telephone number (with hours of operation) : CHEMTREC +1 (800) 424-9300 (Inside the US)
CHEMTREC International +1 (703) 527-3887 (Outside the US, collect calls accepted)

Section 2. Hazards identification

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

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Unborn child) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

Hazard statements : Highly flammable liquid and vapor.
May cause an allergic skin reaction.
Suspected of damaging the unborn child.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response : IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
4-chloro- α,α,α -trifluorotoluene	$\geq 25 - \leq 50$	98-56-6
ethyl 3-ethoxypropionate	$\geq 10 - \leq 20$	763-69-9
acetone	< 10	67-64-1
n-butyl acetate	≤ 5	123-86-4
2-butoxyethyl acetate	≤ 5	112-07-2
5-methylhexan-2-one	≤ 3	110-12-3

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

There are no additional 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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
Unsuitable extinguishing media : Do not use water jet.

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. 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.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides
- Special protective actions for fire-fighters** : 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : 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

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- 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).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use

Section 7. Handling and storage

only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls / personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
4-chloro- α,α,α -trifluorotoluene ethyl 3-ethoxypropionate acetone	<p>None. None.</p> <p>ACGIH TLV (United States, 3/2019). STEL: 500 ppm 15 minutes. TWA: 250 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 590 mg/m³ 10 hours. TWA: 250 ppm 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 2400 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). Notes: The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors. STEL: 2400 mg/m³ 15 minutes. STEL: 1000 ppm 15 minutes. TWA: 1800 mg/m³ 8 hours. TWA: 750 ppm 8 hours.</p>
n-butyl acetate	<p>NIOSH REL (United States, 10/2016). STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 10 hours. TWA: 150 ppm 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). STEL: 950 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 710 mg/m³ 8 hours. TWA: 150 ppm 8 hours.</p> <p>ACGIH TLV (United States, 3/2019). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.</p>
2-butoxyethyl acetate	<p>NIOSH REL (United States, 10/2016). TWA: 5 ppm 10 hours.</p>

Section 8. Exposure controls/personal protection

5-methylhexan-2-one

TWA: 33 mg/m³ 10 hours.
ACGIH TLV (United States, 3/2019).
 TWA: 20 ppm 8 hours.
ACGIH TLV (United States, 3/2019).
 TWA: 20 ppm 8 hours.
 TWA: 93 mg/m³ 8 hours.
 STEL: 50 ppm 15 minutes.
 STEL: 234 mg/m³ 15 minutes.
OSHA PEL 1989 (United States, 3/1989).
 TWA: 50 ppm 8 hours.
 TWA: 240 mg/m³ 8 hours.
NIOSH REL (United States, 10/2016).
 TWA: 50 ppm 10 hours.
 TWA: 240 mg/m³ 10 hours.
OSHA PEL (United States, 5/2018).
 TWA: 100 ppm 8 hours.
 TWA: 475 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : 45°C(113F)

boiling range : Not available.

Flash point Evaporation : Closed cup: 9°C (48.2°F)

rate Flammability (solid, : Not available.

gas) : Not available.

Upper/lower flammability or explosive limits

Upper: : Not determined.

Lower: : Not determined.

Vapor pressure : Not available.

Vapor density : Not available.

Relative density : 1.101

Density : 9.19lbs/gal : 1.101 g/cm³

Solubility : Not available. :

Solubility in water Partition : Not available. :

coefficient: n-octanol/water : Not available.

Auto-ignition temperature

Decomposition temperature : Not available. :

Viscosity : Not available.

Weight Volatiles : Kinematic (room temperature): 0.36 cm²/s (36 cSt)

Volume Volatiles : 72.05% (w/w)

Weight Solids : 71.29 %(v/v)

Volume Solids : 27.95 %(w/w)

Regulatory VOC : 28.71 %(v/v)

VOC Actual : 3.7 lbs/gal 449 g/l minus water and exempt solvents

: 2.1 lbs/gal 251 g/l

Section 10. Stability and reactivity

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

Chemical stability : The product is stable.

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

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-chloro- α,α,α -trifluorotoluene	LD50 Oral	Mouse	11500 mg/kg	-
	LD50 Oral	Rat	13 g/kg	-
ethyl 3-ethoxypropionate	LD50 Dermal	Rabbit	10 mL/kg	-
	LD50 Oral	Rat	5 g/kg	-
acetone	LD50 Oral	Rat	3200 mg/kg	-
	LC50 Inhalation Vapor	Mouse	44 g/m ³	4 hours
	LC50 Inhalation Vapor	Rat	50100 mg/m ³	8 hours
	LD50 Intraperitoneal	Mouse	1297 mg/kg	-
	LD50 Intravenous	Rat	5500 mg/kg	-
	LD50 Oral	Mouse	3 g/kg	-
n-butyl acetate	LD50 Oral	Rabbit	5340 mg/kg	-
	LD50 Oral	Rat	5800 mg/kg	-
	LD50 Oral	Rat	5800 mg/kg	-
	LC50 Inhalation Gas.	Rat	390 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	6 g/m ³	2 hours
	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Oral	Guinea pig	4700 mg/kg	-
	LD50 Oral	Mouse	6 g/kg	-
2-butoxyethyl acetate	LD50 Oral	Rabbit	3200 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
	LD50 Dermal	Rabbit	1500 mg/kg	-
	LD50 Oral	Mouse	3200 mg/kg	-
5-methylhexan-2-one	LD50 Oral	Rat	2400 mg/kg	-
	LC50 Inhalation Gas.	Rat	3813 ppm	6 hours
	LC50 Inhalation Vapor	Rat	17806 mg/m ³	6 hours
	LD50 Dermal	Rabbit	10 mL/kg	-
	LD50 Intraperitoneal	Mouse	800 mg/kg	-
	LD50 Oral	Mouse	2542 mg/kg	-
	LD50 Oral	Rat	3200 mg/kg	-
	LD50 Oral	Rat	5657 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethyl 3-ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
acetone	Eyes - Mild irritant	Rabbit	-	10 UI	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
n-butyl acetate	Skin - Mild irritant	Rabbit	-	395 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2-butoxyethyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-

Section 11. Toxicological information

5-methylhexan-2-one	Skin - Mild irritant Eyes - Mild irritant	Rabbit Rabbit	- -	mg 500 mg 24 hours 100 UI	- -
---------------------	--	------------------	--------	------------------------------------	--------

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
acetone	Category 3	Not applicable.	Respiratory tract irritation
n-butyl acetate	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Dermal	34810.1 mg/kg
Inhalation (vapors)	611.8 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
acetone	Acute EC50 11493300 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 11727900 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute EC50 20.565 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 7550000 µg/l Fresh water	Crustaceans - Asellus aquaticus	48 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 8098000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 7460000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 7810000 µg/l Fresh water	Daphnia - Daphnia cucullata	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 10000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 8800000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 7280000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 6210000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 8120000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Acute LC50 8000 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Skeletonema costatum	72 hours
	Chronic NOEC 100 µl/L Marine water	Algae - Skeletonema costatum	96 hours
	Chronic NOEC 0.5 ml/L Marine water	Algae - Karenia brevis	96 hours
Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours	

Section 12. Ecological information

n-butyl acetate	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Chydoridae	21 days
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Maxillopoda	21 days
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Bosminidae	21 days
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Macrothricidae	21 days
	Chronic NOEC 1 g/L Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 1 g/L Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
5-methylhexan-2-one	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
	Chronic NOEC 5 µg/l Marine water	Fish - Gasterosteus aculeatus - Larvae	42 days
	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 185000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute LC50 62000 µg/l Fresh water	Fish - Danio rerio	96 hours
Acute LC50 159000 µg/l Fresh water	Fish - Pimephales promelas	96 hours	

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
ethyl 3-ethoxypropionate	1.47	-	low
acetone	-0.23	-	low
n-butyl acetate	2.3	-	low
2-butoxyethyl acetate	1.51	-	low
5-methylhexan-2-one	1.88	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations








Disposal methods : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere

Section 13. Disposal considerations

inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

The information provided in section 14 is based on a bulk package shipment via ground transport in North America. All shippers are responsible for ensuring the proper transportation classification and package/container requirements are followed for the relevant mode of transport.

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT
Transport hazard class(es)	3 	3  	3 	3  	3 
Packing group	II	II	II	II	II
Environmental hazards	No.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant (s): 4-chloro- α,α,α -trifluorotoluene	Yes. The environmentally hazardous substance mark is not required.

Additional information

- DOT Classification** : **Special provisions** 383
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.
- IMDG** : **Emergency schedules** F-E, _S-E_
The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

- U.S. Federal regulations** :
- TSCA 4(a) final test rules:** 4-chloro- α,α,α -trifluorotoluene
 - TSCA 5(a)2 final significant new use rules:** No products found.
 - TSCA 5(e) substance consent order:** No products found.
 - TSCA 8(a) PAIR:** 4-chloro- α,α,α -trifluorotoluene; 5-methylhexan-2-one; 2-methoxy-1-methylethyl acetate
 - TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
 - TSCA 12(b) one-time export:** 4-chloro- α,α,α -trifluorotoluene
 - United States inventory (TSCA 8b):** All components are listed or exempted.

Section 15. Regulatory information

Clean Water Act (CWA) 307: ethylbenzene; toluene

Clean Water Act (CWA) 311: n-butyl acetate; benzoic acid; xylene; ethylbenzene; toluene

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

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 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
No products were found.						

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Unborn child) - Category 2

Composition/information on ingredients

Name	%	Classification
4-chloro- α,α,α -trifluorotoluene	≥ 25 - ≤ 50	FLAMMABLE LIQUIDS - Category 3 SKIN SENSITIZATION - Category 1
ethyl 3-ethoxypropionate	≥ 10 - ≤ 20	FLAMMABLE LIQUIDS - Category 3
acetone	< 10	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
n-butyl acetate	≤ 5	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-butoxyethyl acetate	≤ 5	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (dermal) - Category 4
5-methylhexan-2-one	≤ 3	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 TOXIC TO REPRODUCTION (Unborn child) - Category 2

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-butoxyethyl acetate	112-07-2	≤ 5
Supplier notification	2-butoxyethyl acetate	112-07-2	≤ 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: ACETONE; BUTYL ACETATE; N-BUTYL ACETATE; BUTYL ACETATE; N-BUTYL ACETATE; METHYL ISOAMYL KETONE; 5-METHYL-2-HEXANONE

Section 15. Regulatory information

- New York** : The following components are listed: Acetone; 2-Propanone; Butyl acetate; Butyl acetate
- New Jersey** : The following components are listed: 2-BUTOXYETHYL ACETATE; ETHANOL, 2-BUTOXY-, ACETATE; ACETONE; 2-PROPANONE; n-BUTYL ACETATE; ACETIC ACID, BUTYL ESTER; n-BUTYL ACETATE; ACETIC ACID, BUTYL ESTER; METHYL ISOAMYL KETONE; 2-HEXANONE, 5-METHYL-
- Pennsylvania** : The following components are listed: 2-PROPANONE; ACETIC ACID, BUTYL ESTER; ACETIC ACID, BUTYL ESTER; 2-HEXANONE, 5-METHYL-

California Prop. 65

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
4-chloro- α,α,α -trifluorotoluene	-	-
ethylbenzene	Yes.	-
toluene	-	Yes.

Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : At least one component is not listed.
- Europe** : At least one component is not listed.
- Japan** : **Japan inventory (ENCS):** At least one component is not listed.
Japan inventory (ISHL): At least one component is not listed.
- Malaysia** : At least one component is not listed.
- New Zealand** : All components are listed or exempted.
- Philippines** : At least one component is not listed.
- Republic of Korea** : At least one component is not listed.
- Taiwan** : At least one component is not listed.
- Thailand** : At least one component is not listed.
- Turkey** : At least one component is not listed.
- Viet Nam** : At least one component is not listed.

Section 16. Other information

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

Health	*	2
Flammability		3
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION (Unborn child) - Category 2	Calculation method

Section 16. Other information

History

Date of issue : 12-7-2018

Date of revision : 10-25-2023

Version 3

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

▣ Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws. Any person using this product must determine for themselves, by preliminary tests or otherwise, the suitability of this product for their purposes. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. The application, use and processing of Autokote Systems, LLC products and the products manufactured by Buyer on the basis of Autokote Systems, LLC technical advice are beyond Autokote Systems, LLC control and, therefore, entirely Buyer's own responsibility. Autokote Systems, LLC makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.