SAFETY DATA SHEET



Section 1. Identification

Product name	Acetic Anhydride/ Acetic Acid 60/40 Blend
SDS #	000001991
Historic SDS #:	4406
Code	000001991
Relevant identified uses of	f the substance or mixture and uses advised against
Product use	Manufacture of chemicals. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	INEOS US Chemicals Company 150 West Warrenville Road Naperville, Illinois 60563-8460 USA
EMERGENCY SPILL INFORMATION:	+1-800-424-9300 (CHEMTREC USA) +1-703-527-3887 (CHEMTREC outside the US)

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 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1A

GHS label elements Hazard pictograms



Signal word	Danger	
Hazard statements	✓ammable liquid and vapor. Harmful if swallowed. Causes severe skin burns and eye damage. Fatal if inhaled.	
Precautionary statements		
Prevention	protective gloves/clothing and eye/face protection. Wear respiratory protection. Wear protective gloves/clothing and eye/face protection.	
Response	Rinse skin with water [or shower]. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.	
Storage	Store container tightly closed in well-ventilated place.	
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.	
Supplemental label elements	Keep container tightly closed. Do not breathe vapor or spray. Use only with adequate ventilation. Wash thoroughly after handling.	

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Section 2. Hazards identification

Hazards not otherwise classified

Corrosive to the respiratory tract.

Section 3. Composition/information on ingredients

Mixture

Substance/mixture

Ingredient name	CAS number	%
	108-24-7 64-19-7	60 40

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 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	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention immediately. Chemical burns must be treated promptly by a physician.
Skin contact	Get medical attention immediately. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing. Contaminated clothing is a fire hazard. Contaminated leather, particularly footwear, must be discarded. Clean shoes thoroughly before reuse. Chemical burns must be treated promptly by a physician.
Inhalation	If inhaled, remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention immediately. Chemical burns must be treated promptly by a physician.
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.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

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

Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.
Specific treatments	No specific treatment.

Section 5. Fire-fighting measures

Extinguishing media Suitable extinguishing media	Use dry chemical, CO_2 , water spray (fog) or foam. (alcohol-resistant foam)
Unsuitable extinguishing media	Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.

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Section 5. Fire-fighting measures

Specific hazards arising from the chemical	Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors can form explosive mixtures with air. Vapors are heavier than air and can spread along the ground or float on water surfaces to remote ignition sources. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Hazardous combustion products	Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide)
Special protective actions for fire-fighters	DO NOT FIGHT FIRE WHEN IT REACHES MATERIAL. Withdraw from area and allow the fire to burn. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. 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 positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Special remarks on explosion hazards	Do not allow water to enter container because a violent reaction may occur.

Section 6. Accidental release measures

Personal precautions, protecti	ve equipment and emergency procedures
For non-emergency personnel	Immediately contact 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. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Eliminate all ignition sources.
For emergency responders	Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. 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 con	ntainment and cleaning up
Small spill	Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres.
Large spill	Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling	
Protective measures	Put on appropriate personal protective equipment. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Do not reuse container. Empty containers retain product residue and can be hazardous.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. 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 a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Keep away from heat and direct sunlight. 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. Store and use only in equipment/containers designed for use with this product. Do not store in unlabeled containers. Do not allow water to enter container because a violent reaction may occur. Store in containers made from materials proven to be resistant to the substance under local operating conditions.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
cetic anhydride	ACGIH TLV (United States).
	STEL: 3 ppm 15 minutes. Issued/Revised:
	12/2010
	TWA: 1 ppm 8 hours. Issued/Revised:
	OSHA PEL (United States).
	TWA: 20 mg/m ³ 8 hours. Issued/Revised:
	6/1993
	TWA: 5 ppm 8 hours. Issued/Revised: 6/1993
acetic acid	ACGIH TLV (United States).
	STEL: 37 mg/m ³ 15 minutes. Issued/Revised:
	9/1994
	STEL: 15 ppm 15 minutes. Issued/Revised:
	9/1994
	TWA: 25 mg/m ³ 8 hours. Issued/Revised:
	9/1994
	TWA: 10 ppm 8 hours. Issued/Revised:
	9/1994
	OSHA PEL (United States).
	TWA: 25 mg/m ³ 8 hours. Issued/Revised:
	6/1993
	TWA: 10 ppm 8 hours. Issued/Revised:
	6/1993

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Section 8. Exposure controls/personal protection

Appropriate engineering controls	All activities involving chemica exposures are adequately con considered after other forms o suitably evaluated. Personal p standards, be suitable for use, Your supplier of personal prote selection and appropriate stan organisation for standards. Provide exhaust ventilation or concentrations below their res The final choice of protective e	trolled. Personal pro- f control measures (rotective equipment be kept in good con ective equipment sho dards. For further in other engineering co pective occupational quipment will depen	tective equipment sh e.g. engineering con should conform to a dition and properly n ould be consulted for formation contact yo introls to keep the re exposure limits. d upon a risk assess	nould only be trols) have been appropriate naintained. advice on our national elevant airborne sment. It is
Environmental exposure controls	important to ensure that all iter Emissions from ventilation or v comply with the requirements fume scrubbers, filters or engine necessary to reduce emissions	vork process equipm of environmental pro neering modifications	ent should be check tection legislation. I s to the process equi	ked to ensure they n some cases,
Individual protection measures				
Hygiene measures	Wash hands, forearms and fac eating, smoking and using the Appropriate techniques should Wash contaminated clothing b showers are close to the works	lavatory and at the e be used to remove efore reusing. Ensu	end of the working pe potentially contamination	eriod. ated clothing.
Eye/face protection	Recommended: Chemical spla	ish goggles. Face s	hield.	
Skin protection				
Hand protection	Wear chemical resistant glove The correct choice of protectiv conditions of work and use, an resistant glove will break down only a short time of protection specific work environments an should be developed for each in consultation with the supplie conditions.	e gloves depends up d the condition of the after repeated chen before they must be d material handling p intended application.	oon the chemicals be e gloves (even the b nical exposures). Mo discarded and repla practices vary, safety Gloves should there	est chemically ost gloves provide ced. Because / procedures efore be chosen
Body protection	Use of protective clothing is go Personal protective equipment performed and the risks involve this product. Cotton or polyester/cotton ove contamination that will not soar regular basis. When the risk of if there is a risk of splashing) the suits and boots will be required Recommended : Hard hat. Chemical resistant boots. Chemical resistant apron Full chemical protective suit will Chemical protective suit consist buttoned up to the neck, sleeve boots. These precautions are not product against the skin.	for the body should ed and should be ap ralls will only provide k through to the skin of skin exposure is hi nen chemical resista d. th a hood. sting of a jacket and es sealed at the glow	be selected based of proved by a speciali protection against li . Overalls should be gh (e.g. when cleani nt aprons and/or imp trousers. The jacket yes, and trouser legs	st before handling ght superficial e laundered on a ing up spillages or bervious chemical should be
Other skin protection	Appropriate footwear and any based on the task being perfor specialist before handling this	med and the risks in		
Respiratory protection	Use only with adequate ventila inadequate, use NIOSH-certific operating conditions cause hig NIOSH-certified, supplied-air m	ed respirator which v h vapor concentratic	vill protect against or	ganic vapor. If
	Use with adequate ventilation. In case of insufficient ventilation The correct choice of respirato			ls being handled,
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Section 8. Exposure controls/personal protection

the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Color	Clear Colorless.
Odor	Acid. [Strong]
Odor threshold	Not available.
рН	₹5
Melting point	Not available.
Boiling point	<139.6°C (<283.3°F)
Flash point	Closed cup: <54°C (<129.2°F)
Evaporation rate	0.46 (butyl acetate = 1)
Flammability (solid, gas)	Not applicable. Based on - Physical state
Lower and upper explosive	Lower: 2.9% (Based on Acetic anhydride)
(flammable) limits	Upper: 16% (Based on Acetic acid.)
Vapor pressure	<1.6 kPa (<11.7759 mm Hg) [20°C (68°F)]
Vapor density	<3.52 [Air = 1]
Density	Not available.
Relative density	1.08 [at 20°C]
Solubility	Soluble in water.
Partition coefficient: n-	Not available.
octanol/water	
Auto-ignition temperature	330°C (626°F) Based on Acetic anhydride
Decomposition temperature	Not available.
Viscosity	Dynamic: 0.001 Pa⋅s (0.908 cP) at 20°C

Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Keep away from heat, sparks and flame. Keep away from sources of ignition. Keep from any possible contact with water. Steam .
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials, reducing materials, acids, alkalis and moisture. Extremely reactive or incompatible with the following materials: moisture. Reacts violently with water, especially when water is added to the product.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity							
Product/ingredient name	Test	Speci	es	Result	Expos	sure	Remarks
acetic anhydride	LC100 Inhala Vapor	ition Rat - I	Male	1670 mg/n	n³ 6 hou	rs	-
	LD50 Oral	Rat		630 mg/kg	-		-
acetic acid	LC50 Inhalat Vapor	ion Mous	e	5620 ppm	1 hou	rs	-
	LC50 Inhalat Vapor	ion Rat		>16000 pp	m 4 hou	rs	-
	LD50 Oral	Mouse	е	4960 mg/k	g -		Based on sodium acetate
	LD50 Oral	Rat		3530 mg/k	g -		-
	LD50 Oral	Rat		3310 mg/k	g -		Based on sodium acetate
	RD50 Inhalat Vapor		e - Male	277 ppm	1 hou	rs	-
Conclusion/Summary	Not a	vailable.					
Irritation/Corrosion Product/ingredient	Species	Result	Score	Exposure	Observatio	n Conc	Remarks
name	-		00010				
cetic anhydride	Rat	Eyes - Irritant	-	6 hours 20 ppm	90 days	20 ppm	Exposure to vapor
acetic acid	Rabbit	Skin - Slightly irritating to the skin.	-	4 hours 3.3 %	72 hours	3.3 %	-
	Rabbit	Skin - Slightly irritating to the skin.	-	4 hours 10 %	72 hours	10 %	-
	Rabbit	Eyes - Irritant	-	4 hours 0.1 ml, 10 %	72 hours	0.1 ml, 10 %) -
	Rabbit	Eyes - Severe irritant	-	0.01 ml, 10 %	-	0.01 ml, 10 %	-
	Rabbit	Eyes - Cornea opacity	-	3 minutes 0.1 ml, 5 %	7 days	0.1 ml, 5 %	-
Acetic Anhydride/ Acetic Acid 60/40 Blend	Rat	Eyes - Irritant	-	6 hours 20 ppm	90 days	20 ppm	Exposure to vapor
Mutagenicity							
Product/ingredient nat	me Test OECD 4	76		ent: In vitro	Result Negative	Ba	e marks ased on Acetic hydride
			species	Mammal - unspecified			
	OECD 4	73		ent: In vitro Mammal -	Negative	-	
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		ormatio				
			unspecified			
	OECD 471	Subject:	ent: In vitro Nega Non- lian species	ative	-	
	OECD 474	Experime	ent: In vivo Nega	ative	Based anhyd	on Acetic ride
		Subject:	Unspecified			
Conclusion/Summary Reproductive toxicity	Not classified.	Based on ava	ailable data, the cla	ssification cri	teria are no	ot met.
Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Result	Exposure
acetic acid	-	-	Negative	Rabbit	Oral	13 days
	-	-	Negative	Rat	Oral	10 days
	-	-	Negative	Mouse	Oral	10 days
Specific target organ toxic	Fertility: Not cla Assessment wa Effects on or vi criteria are not	assified. Base as by using a a lactation: N met. Assessr	y using a weight of a on available data weight of evidence ot classified. Base ment was by using	a, the classific e approach. d on available	cation criter e data, the o	classification
	city (single exposu		0-1	Dente of		· · · · · · · · · · · · · · · · · · ·
Name			Category	Route of exposure		arget organs
Cetic anhydride	Routes of ent	rv anticipated	Category 3	-		Respiratory trac ritation
nformation on the likely outes of exposure Potential acute health effect	tts		: Oral, Dermal, Inh	- alation.		
nformation on the likely outes of exposure <u>Potential acute health effec</u> Eye contact	t <u>s</u> Causes seriou	us eye damaç	: Oral, Dermal, Inh	- alation.		
nformation on the likely outes of exposure Potential acute health effec Eye contact Skin contact	t <mark>ts</mark> Causes seriou Causes sever	us eye damag e burns.	: Oral, Dermal, Inh ge.		ir	
nformation on the likely outes of exposure <u>Potential acute health effec</u> Eye contact	t <mark>s</mark> Causes seriou Causes sever Fatal if inhale	us eye damag e burns. d. Corrosive allowed. Cau	: Oral, Dermal, Inh ge. to the respiratory t ses burns to moutl	ract. Causes	burns.	ritation
nformation on the likely outes of exposure Potential acute health effect Eye contact Skin contact Inhalation Ingestion	tts Causes seriou Causes sever Fatal if inhale Harmful if swa digestive tract	us eye damag re burns. d. Corrosive allowed. Cau t. Causes bur nd toxicolog	: Oral, Dermal, Inh ge. to the respiratory t ses burns to mouth ns. jical characteristi	ract. Causes n, throat and <u>cs</u>	burns.	ritation
nformation on the likely outes of exposure <u>Potential acute health effec</u> Eye contact Skin contact Inhalation Ingestion	tts Causes seriou Causes sever Fatal if inhale Harmful if swa digestive tract hysical, chemical a Adverse symp pain watering	us eye damag re burns. d. Corrosive allowed. Cau t. Causes bur nd toxicolog	c Oral, Dermal, Inh ge. to the respiratory t ses burns to mouth ns.	ract. Causes n, throat and <u>cs</u>	burns.	ritation
nformation on the likely outes of exposure Potential acute health effect Eye contact Skin contact Inhalation Ingestion	ts Causes seriou Causes sever Fatal if inhale Harmful if swa digestive tract hysical. chemical a Adverse symp pain watering redness	us eye damag e burns. d. Corrosive allowed. Cau t. Causes bur nd toxicolog otoms may ind otoms may ind	: Oral, Dermal, Inh ge. to the respiratory t ses burns to mouth ns. jical characteristi	ract. Causes n, throat and c <u>s</u>	burns.	ritation
nformation on the likely outes of exposure Potential acute health effect Eye contact Skin contact Inhalation Ingestion	causes seriou Causes sever Fatal if inhale Harmful if swa digestive tract hysical, chemical a Adverse symp pain watering redness Adverse symp pain or irritatio redness blistering may	us eye damag e burns. d. Corrosive allowed. Cau t. Causes bur nd toxicolog otoms may ind otoms may ind	: Oral, Dermal, Inh ge. to the respiratory t ses burns to mouth ns. <u>pical characteristi</u> clude the following	ract. Causes n, throat and c <u>s</u>	burns.	ritation

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Section 11. Toxicological information

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

<u>Short term exposure</u>	
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	<u>5</u>
General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
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
Oral	500 mg/kg
Inhalation (vapors)	0.5 mg/l

Other information

Acetic Acid: Humans unacclimatized to acetic acid vapors experience extreme eye and nasal irritation at concentrations above 25 ppm. Air concentrations of 50 ppm are considered intolerable, causing intense lacrymation (eye weeping), nose, and throat irritation. Repeated exposures to high concentrations in man can cause eye conjunctival lesions, blackening of the hands, hyperkeratosis (thickening) of the skin, teeth erosion, congestion and edema of the pharynx, bronchial constriction, and respiratory tract irritation.

Section 12. Ecological information

<u>Toxicity</u>

No testing has been performed by the manufacturer.

Product/ingrec	lient Species	Test/Result	Exposure	Effects	Remarks
acetic acid	Algae	Acute EC50 >300.82 mg/l Nominal Marine water	72 hours	(growth rate)	Based on Acetate ion
	Daphnia	Acute EC50 >300.82 mg/l Nominal Fresh water	48 hours	Mobility	Based on Acetate ion
	Fish Algae	Acute LC50 >300.82 mg/l Nominal Fresh water	96 hours	Mortality	Based on Acetate ion
		Acute NOEC 300.82 mg/l Nominal Marine water	72 hours	(growth rate)	Based on Acetate ion
	Micro-organis	Acute NOEC 850	16 hours	-	-
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Section 12. Ecological information

mg/l Nominal Fresh water

Conclusion/Summary

Not available.

Persistence and degradability

Readily biodegradable

Product/ingredient name	Test	Result	Remarks
cetic acid not guideline		96 % - Readily - 20 days	-
	not guideline	50 % - 26.7 days	Phototransformation in Air
	not guideline	50 % - 2 days	Biodegradation in Soil
Conclusion/Summary	Not available.		

Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

Mobility in soil Soil/water partition	Not available.
coefficient (K _{oc}) Mobility	Reacts with water to form acetic acid (hydrolysis).
	Acetic acid This product may move with surface or groundwater flows because its water solubility is: 100% Miscible in water.
Other ecological information	Acetic anhydride: This product will hydrolyze rapidly to the acid. Acetic acid.: expected to be slightly toxic to aquatic species because of acidity

Section 13. Disposal considerations

Disposal methodsThe generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. 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 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

	DOT Classification	TDG Classification	IMDG	ΙΑΤΑ	
UN number	UN2920	UN2920	UN2920	UN2920	
UN proper shipping name	Corrosive liquid, flammable, n.o.s. (acetic anhydride, acetic acid) RQ	Corrosive liquid, flammable, n.o.s. (acetic anhydride, acetic acid)	Corrosive liquid, flammable, n.o.s. (acetic anhydride, acetic acid)	Corrosive liquid, flammable, n.o.s. (acetic anhydride, acetic acid)	-
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Section 14	Section 14. Transport information					
Transport hazard class(es)	8 (3)	8 (3)	8 (3)	8 (3)		
Packing group	11	11	11	11		
Environmental hazards	No.	No.	No.	No.		
Additional information	Reportable quantity 5000 lbs / 2270 kg [555.25 gal / 2101.9 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.18-2.19 (Class 3).	-	-		

Special precautions for user Not available.

Transport in bulk according to IMO instruments

Not available.

Section 15. Regulatory information

U.S. Federal regulations	
United States inventory (TSCA 8b)	All components are active or exempted.
SARA 302/304	
Composition/information o	n ingredients
No products were found.	
SARA 311/312	
Classification	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1A HNOC - Corrosive to respiratory tract
<u>SARA 313</u>	
Form R - Reporting requirements	This product does not contain any hazardous ingredients at or above regulated thresholds.
Supplier notification	This product does not contain any hazardous ingredients at or above regulated thresholds.
State regulations	
Massachusetts	The following components are listed: ACETIC ANHYDRIDE; ACETIC ACID; ACETIC ACID GLACIAL
New Jersey	The following components are listed: ACETIC ANHYDRIDE; ACETIC ACID, ANHYDRIDE; ACETIC ACID; ETHANOIC ACID
Pennsylvania	The following components are listed: ACETIC ACID, ANHYDRIDE; ACETIC ACID; ACETIC ACID; ACETIC ACID, WATER SOLUTIONS
California Prop. 65	
This product does not req	uire a Safe Harbor warning under California Prop. 65.
Other regulations	
Australia inventory (AICS)	All components are listed or exempted.

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Section 15. Regulatory information

Canada inventory	All components are listed or exempted.
China inventory (IECSC)	All components are listed or exempted.
Japan inventory (ENCS) Korea inventory (KECI)	All components are listed or exempted. All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
REACH Status	For the REACH status of this product please of identified in Section 1

For the REACH status of this product please consult your company contact, as identified in Section 1.

Section 16. Other information

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



motory	
Date of issue/Date of revision	05/27/2021.
Date of previous issue	01/22/2020.
Prepared by	Product Stewardship
Key to abbreviations	ACGIH = American Conference of Industrial Hygienists ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate 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) OEL = Occupational Exposure Limit SDS = Safety Data Sheet STEL = Short term exposure limit TWA = Time weighted average UN = United Nations UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods. Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

Indicates information that has changed from previously issued version.

Notice to reader

History

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. We shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and

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Section 16. Other information

others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

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