

SAFETY DATA SHEET

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1. Identification		
Product identifier	Oatey All Purpose Clear Cement	
Other means of identification		
Product code	1403E	
Synonyms	Part Numbers: 30818(TV), 30821(TV), 30834 32209	(TV), 30847, 30847L, 30848, 31650, 31651, 32208,
Recommended use	Joining PVC, CPVC, or ABS Pipe	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplie	Distributor information	
Company Name	Oatey Co.	
Address	4700 West 160th St.	
	Cleveland, OH 44135	
Telephone	216-267-7100	
E-mail	info@oatey.com	
Transport Emergency	Chemtrec 1-800-424-9300 (Outside the U	S 1_703_527_3887)
Emergency First Aid	1-877-740-5015	3 1-703-327-3007
Contact person	MSDS Coordinator	
0 Uppend(a) identification		
2. Hazard(s) identificatior		
Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement		swallowed. May be fatal if swallowed and enters s eye irritation. May cause respiratory irritation. May
Precautionary statement		
Prevention	Keep away from heat/sparks/open flames/hot closed. Ground/bond container and receiving electrical/ventilating/lighting equipment. Use o	

electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.	
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.	

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	30-45
Acetone	67-64-1	10-20
Cyclohexanone	108-94-1	10-20
Methyl ethyl ketone	78-93-3	8-18
Polyvinyl chloride	9002-86-2	10.98
Ethene, chloro-homopolymer, chlorinated	68648-82-8	3-7
Silica, amorphous, fumed	112945-52-5	1-5

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

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.
6. Accidental release meas	sures
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.
	Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Туре	Value	
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm	
	TWA	1 ppm	
US. OSHA Table Z-1 Limits for A	ir Contaminants (29 CFR 1910.	1000)	
Components	Туре	Value Form	
Acetone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3	
,		50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3	

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

Components	Туре)	V	alue	Form
			20	00 ppm	
Methyl ethyl ketone (CAS	PEL		59	90 mg/m3	
78-93-3)					
	551			00 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL		5	mg/m3	Respirable fraction.
3002-00-2)			1	5 mg/m3	Total dust.
US. OSHA Table Z-3 (29 C	FR 1910.1000)			eg,e	
Components	Туре)	V	alue	
Silica, amorphous, fumed	TWA	L Contraction of the second se	0.	.8 mg/m3	
(CAS 112945-52-5)			2	0 manaf	
			20	0 mppcf	
US. ACGIH Threshold Lin	nit values				
Components	Туре	9	V	alue	Form
Acetone (CAS 67-64-1)	STE			50 ppm	
	TWA			00 ppm	
Cyclohexanone (CAS 108-94-1)	STE	L	50	0 ppm	
100-34-1)	TWA		20	0 ppm	
Furan, Tetrahydro- (CAS	STE			00 ppm	
109-99-9)					
	TWA			0 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STE		30	00 ppm	
	TWA		20	00 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA		1	mg/m3	Respirable fraction.
US. NIOSH: Pocket Guide	to Chemical Hazards				
Components	Туре)	V	alue	
Acetone (CAS 67-64-1)	TWA			90 mg/m3	
(50 ppm	
Cyclohexanone (CAS	TWA			00 mg/m3	
108-94-1)				-	
				5 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STE	L	7:	35 mg/m3	
			2	50 ppm	
	TWA	L .		90 mg/m3	
			20	00 ppm	
Methyl ethyl ketone (CAS	STE	L	88	85 mg/m3	
78-93-3)			30	00 ppm	
	TWA	L .		90 mg/m3	
				00 ppm	
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	L .		mg/m3	
ogical limit values					
ACGIH Biological Exposu	ire Indices				
Components	Value	Determinant	Specimen	Sampling Ti	me

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexan ediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofura n	Urine	*
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*
* - For sampling details, ple	ase see the source	e document.		
posure guidelines				
US - California OELs: Ski	n designation			
Cyclohexanone (CAS US - Minnesota Haz Subs			absorbed thro	ugh the skin.
Cyclohexanone (CAS US - Tennessee OELs: Sk		Skin de	signation appli	ies.
Cyclohexanone (CAS US ACGIH Threshold Lim	,		absorbed thro	ugh the skin.
Cyclohexanone (CAS Furan, Tetrahydro- (C/ US. NIOSH: Pocket Guide	AS 109-99-9)	Can be	absorbed thro absorbed thro	
Cyclohexanone (CAS			absorbed thro	ugh the skin.
opropriate engineering ntrols	changes per h applicable, use maintain airbo established, m	our) should be used. Ver e process enclosures, loc rne levels below recomm	ntilation rates s al exhaust ver ended exposu an acceptable	Good general ventilation (typically 10 air hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not been e level. Eye wash facilities and emergency
dividual protection measure	es, such as persor	nal protective equipment	nt	
Eye/face protection	Face shield is	recommended. Wear sat	ety glasses wi	th side shields (or goggles).
Skin protection				
Hand protection		ate chemical resistant gl		
Other		ate chemical resistant clo	-	
Respiratory protection	limits (where a		table level (in	entrations below recommended exposure countries where exposure limits have not prn.
Thermal hazards	Wear appropri	ate thermal protective clo	othing, when ne	ecessary.
eneral hygiene nsiderations	as washing aft	o not eat, drink or smoke er handling the material and protective equipment	and before eat	rve good personal hygiene measures, such ing, drinking, and/or smoking. Routinely wa ntaminants

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Clear. Milky.
Odor	Solvent.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	151 °F (66.11 °C)
Flash point	14.0 - 23.0 °F (-10.05.0 °C)
Evaporation rate	5.5 - 8

Flammability (solid, gas)	Not available.		
Upper/lower flammability or exp	losive limits		
Flammability limit - lower (%)	1.8		
Flammability limit - upper (%)	11.8		
Explosive limit - lower (%)	Not available.		
Explosive limit - upper (%)	Not available.		
Vapor pressure	145 mm Hg @ 20 C		
Vapor density	2.5		
Relative density	0.94 +/- 0.02		
Solubility(ies)			
Solubility (water)	Negligible		
Partition coefficient (n-octanol/water)	Not available.		
Auto-ignition temperature	Not available.		
Decomposition temperature	Not available.		
Viscosity	Not available.		
Other information			
Bulk density	7.8 lb/gal		
VOC (Weight %)	<325 g/l SCAQMD 1168/M316A		

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
The second se	

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.	
Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20 ml/kg

Components	Species	Test Results
Inhalation	_	
LC50	Rat	50 mg/l, 8 Hours
Oral		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
Dermal	Dabbit	040
LD50	Rabbit	948 mg/kg
Inhalation	D-4	0000
LC50	Rat	8000 ppm, 4 hours
Oral		4540 "
LD50	Rat	1540 mg/kg
* Estimates for product may b	e based on additional componer	t data not shown.
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye	Causes serious eye irritation.	
irritation		
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to	
Germ cell mutagenicity	No data available to indicate p mutagenic or genotoxic.	roduct or any components present at greater than 0.1% are
	mice developed liver tumors w results. Because the carcinog either tumor, the EPA determi assessment of carcinogenic p	ed by NTP (1998). Male rats developed renal tumors and female hile neither the female rats nor the male mice showed similar enic mechanisms could not be identified clearly in either species for ned that the male rat and female mouse findings are relevant to the otential in humans. Therefore, the IRIS review concludes that these there is "suggestive evidence of carcinogenic potential" following of exposure.
IARC Monographs, Overall	Evaluation of Carcinogenicity	
Cyclohexanone (CAS 10) Polyvinyl chloride (CAS 9) Silica, amorphous, fumed	3-94-1) 002-86-2)	 3 Not classifiable as to carcinogenicity to humans. 3 Not classifiable as to carcinogenicity to humans. 3 Not classifiable as to carcinogenicity to humans. 01-1050)
Polyvinyl chloride (CAS 9	002-86-2)	Cancer
Reproductive toxicity	This product is not expected to	cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Narcotic effects. May cause d	owsiness and dizziness. Respiratory tract irritation.
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	May be fatal if swallowed and	enters airways.
Chronic effects	Prolonged inhalation may be h	armful.
12. Ecological information	I	
Ecotoxicity		s environmentally hazardous. However, this does not exclude the t spills can have a harmful or damaging effect on the environment.
Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		

Components		Species	Test Results
Cyclohexanone (CAS 108-94	-1)		
Aquatic			
Fish	LC50	Fathead minnow (Pir	nephales promelas) 481 - 578 mg/l, 96 hours
* Estimates for product may b	e based on add	litional component data	not shown.
ersistence and degradability	No data is av	ailable on the degradat	ility of this product.
ioaccumulative potential	No data avail	able.	
Partition coefficient n-octar	nol / water (log	-	
Acetone (CAS 67-64-1)		-0.24	
Cyclohexanone (CAS 108-94	,	0.81	
Furan, Tetrahydro- (CAS 109 Methyl ethyl ketone (CAS 78-		0.46 0.29	
• • •	No data avail		
obility in soil			ete (e. e. e
ther adverse effects			cts (e.g. ozone depletion, photochemical ozone creation al warming potential) are expected from this component.
3. Disposal consideratio	ns		
isposal instructions			aled containers at licensed waste disposal site. This materia
	and its contai	iner must be disposed o	of as hazardous waste. Do not allow this material to drain in
			minate ponds, waterways or ditches with chemical or used
	regulations.	spose of contents/conta	iner in accordance with local/regional/national/international
ocal disposal regulations	e	cordance with all applic	cable regulations
	-		-
azardous waste code	disposal com	pany.	in discussion between the user, the producer and the waste
/aste from residues / unused roducts		ues. This material and i	regulations. Empty containers or liners may retain some ts container must be disposed of in a safe manner (see:
ontaminated packaging			an approved waste handling site for recycling or disposal. product residue, follow label warnings even after container
4. Transport information			
от			
UN number	UN1133		
UN proper shipping name	Adhesives		
Transport hazard class(es)			
Class	3		
Subsidiary risk	-		
Label(s)	3		
Packing group			
			mergency procedures before handling.
Special provisions	T11, TP1, TP 150	8, TP27	
Packaging exceptions Packaging non bulk	201		
Packaging bulk	243		
ATA	210		
UN number	UN1133		
UN proper shipping name	Adhesives		
Transport hazard class(es)			
Class	3		
Subsidiary risk	-		
Packing group	II		
Environmental hazards	No.		

ERG Code

UN number	UN1133
UN proper shipping name	ADHESIVES

3L

Transport hazard class(es)		
Class	3	
Subsidiary risk	-	
Packing group	II	
Environmental hazards	No.	
Marine pollutant EmS	F-E, S-D	
-	-	and emergency procedures before handling.
Transport in bulk according to	Not available.	
Annex II of MARPOL 73/78 and the IBC Code		
15. Regulatory information		
US federal regulations	This product is a "Hazardous O Standard, 29 CFR 1910.1200. All components are on the U.S	
TSCA Section 12(b) Export N	lotification (40 CFR 707, Subp	ot. D)
Not regulated.	d Substances (29 CFR 1910.10	001-1050)
Polyvinyl chloride (CAS 90	-	Cancer
		Central nervous system
		Liver
		Blood Flammability
CERCLA Hazardous Substar	nce List (40 CFR 302.4)	, annaointy
Acetone (CAS 67-64-1)		LISTED
Cyclohexanone (CAS 108		LISTED
Furan, Tetrahydro- (CAS Methyl ethyl ketone (CAS		LISTED LISTED
Superfund Amendments and Rea	,	RA)
Hazard categories	Immediate Hazard - Yes	
	Delayed Hazard - No Fire Hazard - Yes	
	Pressure Hazard - No	
	Reactivity Hazard - No	
SARA 302 Extremely hazard Not listed.	ous substance	
SARA 311/312 Hazardous	No	
chemical	NO	
SARA 313 (TRI reporting)		
Not regulated.		
Other federal regulations		
	112 Hazardous Air Pollutants	(HAPs) List
Not regulated. Clean Air Act (CAA) Section	112(r) Accidental Release Pre	evention (40 CFR 68.130)
Not regulated.	.,	, ,
Safe Drinking Water Act (SDWA)	Not regulated.	
Drug Enforcement Admi Chemical Code Number	nistration (DEA). List 2, Essei	ntial Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and
Acetone (CAS 67-64-		6532
Methyl ethyl ketone (0		6714
Acetone (CAS 67-64-		cempt Chemical Mixtures (21 CFR 1310.12(c)) 35 %WV
Methyl ethyl ketone (CAS 67-64-		35 %WV
DEA Exempt Chemical M		
Acetone (CAS 67-64-	1)	6532

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1) Cyclohexanone (CAS 108-94-1) Furan, Tetrahydro- (CAS 109-99-9) Methyl ethyl ketone (CAS 78-93-3) Silica, amorphous, fumed (CAS 112945-52-5)

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

Acetone (CAS 67-64-1) Cyclohexanone (CAS 108-94-1) Furan, Tetrahydro- (CAS 109-99-9) Methyl ethyl ketone (CAS 78-93-3) Polyvinyl chloride (CAS 9002-86-2)

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

Acetone (CAS 67-64-1) Cyclohexanone (CAS 108-94-1) Furan, Tetrahydro- (CAS 109-99-9) Methyl ethyl ketone (CAS 78-93-3) Silica, amorphous, fumed (CAS 112945-52-5)

US. Rhode Island RTK

Acetone (CAS 67-64-1) Cyclohexanone (CAS 108-94-1) Furan, Tetrahydro- (CAS 109-99-9) Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No
•	mplies with the inventory requirements administered by the governing country(s).	

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date 05-27-2015 Revision date -Version # 01 HMIS® ratings Health: 2 Flammability: 3 Physical hazard: 0 NFPA ratings

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.





*** Section 1 - Product and Company Identification ***

MSDS #1402E

Part Numbers: Purple – 30755(TV), 30756(TV), 30757(TV), 30758, 30759, 30927 Clear - 30749, 30750, 30751, 30752, 30753, 30754, 31652, 31653

Manufacturer Information

Oatey Co. 4700 West 160th Street Cleveland, OH 44135 Phone: 216-267-7100

For Emergency First Aid call 1-877-740-5015. For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.

*** Section 2 - Hazards Identification ***

GHS Classification:

Flammable Liquids - Category 2 Acute Toxicity Oral - Category 4 Acute Toxicity Dermal - Category 4 Acute Toxicity Inhalation - Category 4 Eye Damage/Irritation - Category 2A Carcinogenicity - Category 2 Specific Target Organ Toxicity Single Exposure - Category 3

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor.

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

Causes serious eye irritation.

Contains a chemical classified by the US EPA as a suspected possible carcinogen.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames and hot surfaces. - No smoking.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/eye protection/face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing fume/gas/mist/vapors.
Use only outdoors or in a well-ventilated area.

Response

If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting. If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

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.

If exposed or concerned: Get medical advice/attention.

In case of fire: Use dry chemical, CO2, or foam to extinguish fire.

Storage

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
78-93-3	Methyl ethyl ketone	25-40
67-64-1	Acetone	25-40
108-94-1	Cyclohexanone	15-30
109-99-9	Tetrahydrofuran	15-30

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.

First Aid: Skin

Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with hand cleaner or baby oil.

First Aid: Ingestion

DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

First Aid: Inhalation

If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Highly flammable liquid and vapor. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

Hazardous Combustion Products

Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

Extinguishing Media

Use dry chemical, CO2, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.

Unsuitable Extinguishing Media

None.

Fire Fighting Equipment/Instructions

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Stop leak if it can be done without risk.

Materials and Methods for Clean-Up

Remove all sources of ignition and ventilate area. Soak up spill with an inert absorbent such as sand, earth or other noncombusting material. Put absorbent material in covered, labeled metal containers.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high.

Environmental Precautions

Prevent liquid from entering watercourses, sewers and natural waterways.

Prevention of Secondary Hazards

None

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use. "Empty" containers retain product residue and can be hazardous. Follow all SDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

Storage Procedures

Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.

Incompatibilities

Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

*** Section 8 - Exposure Controls / Personal Protection ***

Component Exposure Limits

Acetone (67-64-1)

ACGIH: 500 ppm TWA 750 ppm STEL OSHA: 1000 ppm TWA; 2400 mg/m3 TWA NIOSH: 250 ppm TWA; 590 mg/m3 TWA

Methyl ethyl ketone (78-93-3)

ACGIH: 200 ppm TWA 300 ppm STEL OSHA: 200 ppm TWA; 590 mg/m3 TWA NIOSH: 200 ppm TWA; 590 mg/m3 TWA 300 ppm STEL; 885 mg/m3 STEL

Cyclohexanone (108-94-1)

ACGIH:	20 ppm TWA
	50 ppm STEL
	Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA:	50 ppm TWA; 200 mg/m3 TWA
NIOSH:	25 ppm TWA; 100 mg/m3 TWA
	Potential for dermal absorption

Tetrahydrofuran (109-99-9)

-	
ACGIH:	50 ppm TWA
	100 ppm STEL
	Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA:	200 ppm TWA; 590 mg/m3 TWA
NIOSH:	200 ppm TWA; 590 mg/m3 TWA

Engineering Measures

Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.

Personal Protective Equipment: Respiratory

For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

Personal Protective Equipment: Hands

Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

Personal Protective Equipment: Eyes

Safety glasses with side shields or safety goggles.

Personal Protective Equipment: Skin and Body

No additional protective equipment needed.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Purple or clear	Odor:	Ether-like
Physical State:	Liquid	pH:	NA
Vapor Pressure:	145 mmHg @ 20°C	Vapor Density:	2.5
Boiling Point:	151°F (66°C)	Melting Point:	NA
Solubility (H2O):	Negligible	Specific Gravity:	0.84 +/- 0.02 @ 20°C
Evaporation Rate:	(BUAC = 1) = 5.5 - 8.0	VOC:	99.96%
Octanol/H2O Coeff.:	ND	Flash Point:	14-23°F (-10 to -5°C)
Flash Point Method:	CCCFP	Upper Flammability Limit	11.8
		(UFL):	
Lower Flammability Limit	1.8	Burning Rate:	ND
(LFL):			
Auto Ignition:	ND		

*** Section 10 - Chemical Stability & Reactivity Information **

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Avoid heat, sparks, flames and other sources of ignition.

Incompatible Products

Oxidizing agents, alkalis, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.

Hazardous Decomposition Products

Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

Component Analysis - LD50/LC50

Acetone (67-64-1) Oral LD50 Rat 5800 mg/kg

Methyl ethyl ketone (78-93-3)

Inhalation LC50 Mouse 32 g/m3 4 h; Oral LD50 Rat 2737 mg/kg; Dermal LD50 Rabbit 6480 mg/kg

Cyclohexanone (108-94-1)

Inhalation LC50 Rat 10.7 mg/L 4 h; Inhalation LC50 Rat 8000 ppm 4 h; Oral LD50 Rat 800 mg/kg; Dermal LD50 Rabbit 948 mg/kg

Tetrahydrofuran (109-99-9)

Inhalation LC50 Rat 53.9 mg/L 4 h; Inhalation LC50 Rat 180 mg/L 1 h; Oral LD50 Rat 1650 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

May cause irritation with redness, itching and pain. Methyl ethyl ketone and cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.

Potential Health Effects: Ingestion

Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

Potential Health Effects: Inhalation

Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

Carcinogenicity

A: General Product Information

In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

B: Component Carcinogenicity

Acetone (67-64-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Cyclohexanone (108-94-1)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Tetrahydrofuran (109-99-9)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Reproductive Toxicity

Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran has been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Specified Target Organ General Toxicity: Single Exposure

May cause respiratory irritation. Inhalation of high concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ toxicity repeat exposure effects.

Aspiration Respiratory Organs Hazard

Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

This product is not expected to be toxic to aquatic organisms.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Acetone (67-64-1)		
Test & Species		Conditions
96 Hr LC50 Oncorhynchus mykiss	4.74 - 6.33 mL/L	
96 Hr LC50 Pimephales promelas	6210 - 8120 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	8300 mg/L	
48 Hr EC50 Daphnia magna	10294 - 17704 mg/L [Static]	
48 Hr EC50 Daphnia magna	12600 - 12700 mg/L	
Methyl ethyl ketone (78-93-3)		
Methyl ethyl ketone (78-93-3) Test & Species		Conditions
	3130-3320 mg/L [flow-through]	Conditions
Test & Species	0	Conditions
Test & Species 96 Hr LC50 Pimephales promelas	[flow-through]	Conditions

Cyclohexanone (108-94-1)		
Test & Species		Conditions
96 Hr LC50 Pimephales promelas	481-578 mg/L [flow- through]	
96 Hr LC50 Pimephales promelas	8.9 mg/L	
96 Hr EC50 Chlorella vulgaris	20 mg/L	
24 Hr EC50 Daphnia magna	800 mg/L	
Tetrahydrofuran (109-99-9)		Conditions
Test & Species		Conditions
96 Hr LC50 Pimephales promelas	1970-2360 mg/L [flow-through]	
96 Hr LC50 Pimephales promelas	2700-3600 mg/L	
	[static]	

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

DOT Information

For Greater than 1 liter (0.3 gal):

Shipping Name: Flammable Liquid, n.o.s (Methyl Ethyl Ketone, Acetone) UN #: 1993 Hazard Class: 3 Packing Group: II Required Label(s): Flammable Liquid

For Less than 1 liter (0.3 gal): Shipping Name: Consumer Commodity, ORM-D

IMDG Information

For Greater than 1 liter (0.3 gal): Shipping Name: Flammable Liquid, n.o.s (Methyl Ethyl Ketone, Acetone) UN #: 1993 Hazard Class: 3 Packing Group: II Required Label(s): Flammable Liquid

For Less than 1 liter (0.3 gal): Shipping Name: Flammable Liquid, n.o.s (Limited Quantity) UN #: 1993 Hazard Class: 3 Packing Group: II

Required Label(s): None (Limited Quantities are expected from labeling)

*** Section 15 - Regulatory Information ***

Regulatory Information US Federal Regulations

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Acetone (67-64-1)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

Methyl ethyl ketone (78-93-3)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

Cyclohexanone (108-94-1)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

Tetrahydrofuran (109-99-9)

CERCLA: 1000 lb final RQ; 454 kg final RQ

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes	No
Methyl ethyl ketone	78-93-3	Yes	Yes	Yes	Yes	Yes	No
Cyclohexanone	108-94-1	Yes	Yes	Yes	Yes	Yes	No
Tetrahydrofuran	109-99-9	Yes	Yes	Yes	Yes	Yes	No

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Acetone	67-64-1	1 %
Methyl ethyl ketone	78-93-3	1 %
Cyclohexanone	108-94-1	0.1 %
Tetrahydrofuran	109-99-9	1 %

Additional Regulatory Information

A: General Product Information

This product contains trace amounts of chemicals known to the State of California to cause cancer. Under normal use conditions, exposure to these chemicals at levels above the State of California "No Significant Risk Level" (NSRL) are unlikely. The use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 will minimize exposure to these chemicals.

Component	CAS #	TSCA	CAN	EEC
Acetone	67-64-1	Yes	DSL	EINECS
Methyl ethyl ketone	78-93-3	Yes	DSL	EINECS
Cyclohexanone	108-94-1	Yes	DSL	EINECS
Tetrahydrofuran	109-99-9	Yes	DSL	EINECS

B: Component Analysis - Inventory

* * * Section 16 - Other Information * * *

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

NFPA and HMIS:

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None HMIS Hazard Signal: Health: 2* Flammability: 3 Reactivity: 1 PPE: G

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources, and expressly do not make warranties, nor assume any liability for its use.

End of Sheet