according to the Hazardous Products Regulations





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#### **SECTION 1. IDENTIFICATION**

Trade name	:	NOROX <sup>®</sup> MEKP-9			
Other means of identification	:	No data available			
Manufacturer or supplier's d	leta	ails			
Company name of supplier	:	United Initiators, Inc.			
Address	:	555 Garden Street Elyria OH 44035 USA			
		United Initiators Canada Ltd. 2147 PG Pulp Mill Road Prince George, BC-V2N 2S6 CANADA			
Telephone	:	+1-440-323-3112			
Telefax	:	+1-440-323-2659			
Emergency telephone	:	CHEMTREC US (24h): CHEMTREC WORLD (24h): CANUTEC (24h):	+1-800-424-9300 +1-703-527-3887 1-613-996-6666		
For Transportation Incidents	:	TERRAPURE EMERGENCY RESPON 1-800-567-7455	ISE SERVICES (24h):		
E-mail address of person responsible for the SDS	:	cs-initiators.nafta@united-in.com			
Recommended use of the chemical and restrictions on use					
Recommended use	:	Hardener			

#### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the Hazardous Products Regulations

Flammable liquids	:	Category 4
Organic peroxides	:	Type D
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4





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Skin	corrosion	: Category 1	
Serio	us eye damage	: Category 1	
Repro	oductive toxicity	: Category 2	
Short haza	t-term (acute) aquatic rd	: Category 2	
	label elements rd pictograms		
- Id2d			
Signa	al Word	: Danger	
Haza	rd Statements	H302 + H332 H314 Causes	may cause a fire. Harmful if swallowed or if inhaled. severe skin burns and eye damage. ed of damaging fertility or the unborn child.
Preca	autionary Statements	P202 Do not h and understood P210 Keep aw and other ignit P234 Keep on P240 Ground a P261 Avoid br P264 Wash sk P270 Do not e P271 Use only P273 Avoid re P280 Wear pro	pecial instructions before use. andle until all safety precautions have been read d. ay from heat, hot surfaces, sparks, open flames ion sources. No smoking. ly in original packaging. and bond container and receiving equipment. eathing mist or vapors. tin thoroughly after handling. at, drink or smoke when using this product. outdoors or in a well-ventilated area. ease to the environment. otective gloves/ protective clothing/ eye protection/ / hearing protection.
		CENTER/ doc P301 + P330 - induce vomitin P303 + P361 - all contaminate P304 + P340 -	<ul> <li>P353 IF ON SKIN (or hair): Take off immediately ed clothing. Rinse skin with water.</li> <li>P310 IF INHALED: Remove person to fresh air fortable for breathing. Immediately call a POISON</li> </ul>

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		water for sever and easy to do CENTER/ doct P308 + P313 I attention. P363 Wash co P370 + P378 I	<ul> <li>P338 + P310 IF IN EYES: Rinse cautiously with ral minutes. Remove contact lenses, if present</li> <li>Continue rinsing. Immediately call a POISON tor.</li> <li>F exposed or concerned: Get medical advice/</li> <li>ontaminated clothing before reuse.</li> <li>n case of fire: Use water spray, alcohol-resistant nical or carbon dioxide to extinguish.</li> </ul>
		Storage:	
		P405 Store   P410 Protec P411 Store a	in a well-ventilated place. locked up. t from sunlight. at temperatures not exceeding < 100 °F/ < 38 °C. separately.
		Disposal:	
		P501 Dispose posal plant.	of contents/ container to an approved waste dis-
Othe	r hazards		

None known.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
---------------------	---	---------

Chemical nature	:	Organic Peroxide
		Liquid mixture

#### Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
dimethyl phthalate	dimethyl phtha- late	131-11-3	>= 40 - < 45 *
2-Butanone, peroxide	2-Butanone, peroxide	1338-23-4	>= 30 - < 35 *
Trimethylpentanediol isobutyrate	Trimethylpenta- nediol isobuty- rate	6846-50-0	>= 20 - < 25 *
Butanone	Butanone	78-93-3	>= 1 - < 5 *
Hydrogen peroxide	Hydrogen pe- roxide	7722-84-1	>= 1 - < 5 *

\* Actual concentration or concentration range is withheld as a trade secret

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#### SECTION 4. FIRST AID MEASURES

General advice :	<ul> <li>Take off contaminated clothing and shoes immediately.</li> <li>Call a physician immediately.</li> <li>Never give anything by mouth to an unconscious person.</li> <li>If unconscious, place in recovery position and seek medical advice.</li> <li>Move out of dangerous area.</li> <li>Show this material safety data sheet to the doctor in attendance.</li> <li>Do not leave the victim unattended.</li> <li>Symptoms of poisoning may appear several hours later.</li> </ul>
If inhaled :	Administer oxygen if breathing is difficult or cyanosis is observed. Call a physician immediately. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Respiratory tract burning possible if aerosols are inhaled. Call a physician or poison control center immediately. If unconscious, place in recovery position and seek medical advice. Keep respiratory tract clear.
In case of skin contact :	If symptoms persist, call a physician. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact :	Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed :	Call a physician immediately. Rinse mouth thoroughly with water. Keep respiratory tract clear.

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				Do NOT induce vo If symptoms persi	omiting. st, call a physician.
a	Most important symptoms and effects, both acute and delayed		:	Harmful if swallow Causes serious en Suspected of dam Causes severe bu	ye damage. aging fertility or the unborn child.
F	Protecti	on of first-aiders	:	-	rs should pay attention to self-protection mended protective clothing
١	Notes to	o physician	:	Treat symptomation	cally and supportively.

#### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Water spray jet Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray jet Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Risk of explosion if heated under confinement. Possible emission of gaseous decomposition products may lead to a dangerous pressure build-up. Avoid confinement. Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self- accelerating decomposition reaction with release of flammable vapors which may auto-ignite. The product burns violently. Flash back possible over considerable distance. Do not allow run-off from fire fighting to enter drains or water courses. Vapors may form explosive mixtures with air. Cool closed containers exposed to fire with water spray.
Specific extinguishing meth- ods	:	Do not use a solid water stream as it may scatter and spread fire. Remove undamaged containers from fire area if it is safe to do so. Use water spray to cool unopened containers.
Further information	:	Use extinguishing measures that are appropriate to local

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			Use a v Collect must no Fire res	vater spray contaminat ot be discha idues and	d the surrounding environment. to cool fully closed containers. ted fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.
	ecial protective fire-fighters	equipment	necessa	ary.	ed breathing apparatus for firefighting if ective equipment.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Follow safe handling advice and personal protective equipment recommendations. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Use personal protective equipment. Remove all sources of ignition. Never return spills in original containers for re-use. Treat recovered material as described in the section "Disposal considerations".
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contact with incompatible substances can cause decomposition at or below SADT. Clear spills immediately. Suppress (knock down) gases/vapors/mists with a water spray jet. To clean the floor and all objects contaminated by this material, use plenty of water. Soak up with inert absorbent material. Isolate waste and do not reuse. Non-sparking tools should be used. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

#### SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Advice on protection against	:	Take necessary action to avoid static electricity discharge





Vers 4.1	ion	Revision Date: 07/25/2024		0S Number: 0000000100	Date of last issue: 07/05/2022 Date of first issue: 09/30/2016
	fire and	explosion		Keep away from h Use only explosio Keep away from o ignition. Keep away from o	se ignition of organic vapors). neat and sources of ignition. n-proof equipment. open flames, hot surfaces and sources of combustible material.
	Advice	on safe handling	:	Protect from conta Do not swallow. Do not breathe va Avoid exposure - Avoid contact with Avoid formation of Take precautionar Never return any originally removed Provide sufficient Avoid confinement Keep away from h other ignition sour Smoking, eating a application area. Wash thoroughly	pors/dust. obtain special instructions before use. n skin and eyes. f aerosol. y measures against static discharges. product to the container from which it was air exchange and/or exhaust in work rooms. t. neat, hot surfaces, sparks, open flames and rces. No smoking. and drinking should be prohibited in the
	Conditio	ons for safe storage	:	Store in cool place Keep in a well-ven Contamination ma closed containers Observe label pre Store in accordan Avoid impurities ( Electrical installat the technological	ightly closed in a cool, well-ventilated place. e. titlated place. ay result in dangerous pressure increases - may rupture. cautions. ce with the particular national regulations. e.g. rust, dust, ash), risk of decomposition. ions / working materials must comply with safety standards. are opened must be carefully resealed and
	Materia	ls to avoid	:		combustible materials. strong acids, bases, heavy metal salts and bstances.
	Recomi perature	mended storage tem-	:	< 38 °C	
	Further age sta	information on stor- bility	:	Stable under reco	mmended storage conditions.

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#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
dimethyl phthalate	131-11-3	TWA	5 mg/m3	CA AB OEL
		TWA	5 mg/m3	CA BC OEL
		TWAEV	5 mg/m3	CA QC OEL
		TWA	5 mg/m3	ACGIH
2-Butanone, peroxide	1338-23-4	(c)	0.2 ppm 1.4 mg/m3	CA AB OEL
		С	0.2 ppm	CA BC OEL
		С	0.2 ppm 1.5 mg/m3	CA QC OEL
		С	0.2 ppm	ACGIH
Butanone	78-93-3	TWA	200 ppm 590 mg/m3	CA AB OEL
		STEL	300 ppm 885 mg/m3	CA AB OEL
		TWA	50 ppm	CA BC OEL
		STEL	100 ppm	CA BC OEL
		TWAEV	50 ppm 150 mg/m3	CA QC OEL
		STEV	100 ppm 300 mg/m3	CA QC OEL
		TWA	200 ppm	ACGIH
		STEL	300 ppm	ACGIH
Hydrogen peroxide	7722-84-1	TWA	1 ppm 1.4 mg/m3	CA AB OEL
		TWA	1 ppm	CA BC OEL
		TWAEV	1 ppm	CA QC OEL
		TWA	1 ppm	ACGIH

#### **Biological occupational exposure limits**

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentra- tion	Basis
Butanone	78-93-3	methyl ethyl ketone	Urine	End of shift (As soon as possible after exposure ceases)	2 mg/l	ACGIH BEI





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Engir	Engineering measures		Minimize workpl	ace exposure concentrations.
Perso	onal protective equip	ment		
Respi	Respiratory protection		In the case of de approved filter.	ust or aerosol formation use respirator with an
Fil	lter type	:	ABEK-filter	
			Use NIOSH app	roved respiratory protection.
Ma Br	protection aterial reak through time rove thickness	:	Nitrile rubber <= 30 min 0.4 mm	
Br	aterial reak through time ove thickness	:	butyl-rubber <= 480 min 0.5 mm	
Re	emarks	:	standard values material has to l protective glove, chemicals dependent hazardous subs For special app resistance to ch gloves with the	break through time/strength of material are ! The exact break through time/strength of be obtained from the producer of the . Choose gloves to protect hands against nding on the concentration and quantity of the tance and specific to place of work. lications, we recommend clarifying the emicals of the aforementioned protective glove manufacturer. Wash hands before he end of workday.
Eye p	protection	:	to the workstatic Please follow al selecting protec Always wear ey eye contact with Tightly fitting sa Please wear su	I applicable local/national requirements when tive measures for a specific workplace. e protection when the potential for inadvertent the product cannot be excluded.
Skin a	and body protection	:		te protective clothing based on chemical and an assessment of the local exposure
			task being perfo disposable suits Wear as approp	garments should be used based upon the rmed (e.g., sleevelets, apron, gauntlets, to avoid exposed skin surfaces. riate: antistatic protective clothing.

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Prote	ective measures	•••••	otective equipment must be selected according ration and amount of the dangerous substance workplace.
Hygiene measures		Keep away fro When using do When using do	with skin, eyes and clothing. m food and drink. o not eat or drink. o not smoke. efore breaks and immediately after handling

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless
Odor	:	characteristic
рН	:	Not applicable
Melting point/range	:	No data available
Boiling point/boiling range	:	Decomposition: Decomposes below the boiling point.
Flash point	:	> 76 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Self-ignition	:	Not applicable Decomposition
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available

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Rela	ative vapor density	:	> 1	
Der	sity	:	1.1 g/cm3	
	ubility(ies) Water solubility	:	soluble	
	tition coefficient: n- anol/water	:	No data available	
	Accelerating decomposi- temperature (SADT)	:	SADT-Self Accel temperature at w	erating Decomposition Temperature. Lowest hich the tested package size will undergo a decomposition reaction.
	cosity √iscosity, dynamic	:	No data available	
,	/iscosity, kinematic	:	not determined	
Oxi	dizing properties	:	The substance o Organic peroxide	r mixture is not classified as oxidizing.

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions. Heating may cause a fire or explosion.
Chemical stability	:	Stable under recommended storage conditions. No decomposition if stored normally.
Possibility of hazardous reac- tions	:	Vapors may form explosive mixture with air.
Conditions to avoid	:	Protect from contamination. Contact with incompatible substances can cause decomposition at or below SADT. Heat, flames and sparks. Avoid confinement.
Incompatible materials	:	Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents
Hazardous decomposition	:	Irritant, caustic, flammable, noxious/toxic gases and vapours

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produc	cts	can develop	in the case of fire and decomposition
CTION	11. TOXICOLOGICA	L INFORMATION	
	t <b>oxicity</b> ul if swallowed or if ir	balad	
Produ			
	oral toxicity		estimate: 1,404 mg/kg Jation method
Acute	inhalation toxicity	Exposure time Test atmosph	estimate: 4.29 mg/l e: 4 h ere: dust/mist ulation method
Acute	dermal toxicity		estimate: > 2,000 mg/kg Jation method
<u>Comp</u>	oonents:		
dimet	thyl phthalate:		
Acute	oral toxicity	: LD50 (Rat): >	5,000 mg/kg
Acute	inhalation toxicity	: (Rat): > 10.4 Exposure time Test atmosph Remarks: No	e: 6 h
Acute	dermal toxicity	: LD50 (Rabbit)	: > 12,000 mg/kg
2-Buta	anone, peroxide:		
	oral toxicity	: Acute toxicity Method: Expe	estimate: 500 mg/kg rt judgment
Acute	inhalation toxicity	Exposure time Test atmosph Method: Expe Assessment: short term inh	ere: dust/mist rt judgment The component/mixture is moderately toxic a
Acute	dermal toxicity	: Acute toxicity Method: Expe	estimate: 2,500 mg/kg

### Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

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		Method: Exp Assessment icity	ert judgment : The substance or mixture has no acute oral tox-
Acut	e inhalation toxicity	tion toxicity	ne: 6 h here: vapor
Acut	e dermal toxicity	Method: Exp	a pig): > 2,000 mg/kg ert judgment : The substance or mixture has no acute dermal
Buta	anone:		
Acut	e oral toxicity	: LD50 (Rat): Method: OE0	2,193 mg/kg CD Test Guideline 423
Acut	e inhalation toxicity	: Remarks: No	o data available
Acut	e dermal toxicity	Method: OE	t): > 5,000 mg/kg CD Test Guideline 402 ased on available data, the classification criteria
Hvd	rogen peroxide:		
-	te oral toxicity	Method: Exp	: The component/mixture is moderately toxic after
Acut	e inhalation toxicity	Exposure tim Test atmosp Assessment short term in	here: dust/mist The component/mixture is moderately toxic after halation. ased on harmonised classification in EU regulation
Acut	e dermal toxicity		t): 9,200 mg/kg adverse effect has been observed in acute tox-

#### Skin corrosion/irritation

Causes severe burns.





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_				
<u>Prod</u>	uct:			
Rema	arks	: 1	Extremely corrosi	ve and destructive to tissue.
<u>Com</u>	ponents:			
dime	ethyl phthalate:			
Spec			Rabbit	
Meth			Draize Test	
Resu	llt	: 1	No skin irritation	
2-Bu	tanone, peroxide:			
Spec	ies	: 1	Rabbit	
Resu	ilt	: (	Causes burns.	
Trim	ethylpentanediol iso	butyrate	:	
Spec	ies	: (	Guinea pig	
Expo	sure time	: 2	24 h	
Resu			No skin irritation	
Rema	arks	: 1	Based on availabl	e data, the classification criteria are not met.
Buta	none:			
Spec	ies	: 1	Rabbit	
Asse	essment			ire may cause skin dryness or cracking.
Meth			DECD Test Guide	eline 404
Resu	llt	: 1	No skin irritation	
Hydr	ogen peroxide:			
Resu	lt	: (	Corrosive after 3	minutes or less of exposure
Serio	ous eye damage/eye	irritatio	n	
	es serious eye damag			
Prod	uct:			
Rema	arks	: 1	May cause irrever	sible eye damage.
<u>Com</u>	ponents:			
dime	ethyl phthalate:			
Spec			Rabbit	
Resu			No eye irritation	
Meth	od	: (	DECD Test Guide	eline 405
2-Bu	tanone, peroxide:			
Resu	llt	: 1	rreversible effect	s on the eye

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	ethylpentanediol iso	butyra			
Speci		:	Rabbit		
Resul	it sure time	:	No eye irritation 24 h		
Expo	sule line	•	24 11		
Butar	none:				
Speci	ies	:	Rabbit		
Resu		:	Eye irritation		
Metho	bd	:	OECD Test Gui	deline 405	
Hydro	ogen peroxide:				
Resul	lt	:	Irreversible effect	cts on the eye	
Rema	arks	:	Hydrogen perox	ide (H2O2), 35%	
Resp	iratory or skin sensi	tizatio	n		
Skin	sensitization				
Not c	lassified due to lack o	f data.			
-	iratory sensitization				
	lassified due to lack o	f data.			
-	ponents:				
	thyl phthalate:				
Speci		:	Mouse		
Metho		:	OECD Test Gui		
Resul	It	:	Does not cause	skin sensitization.	
2-But	anone, peroxide:				
Speci		:	Guinea pig		
Metho		:	OECD Test Gui		
Resul	It	:	Does not cause	skin sensitization.	
Asse	ssment	:	Harmful if swalle	owed., Harmful if inhaled.	
Trime	ethylpentanediol iso	butyra	te:		
			Outras ata		
Speci	ies	:	Guinea pig		
		:		skin sensitization.	
Speci Resul		:		skin sensitization.	
Speci Resul <b>Buta</b> r	none:	:		skin sensitization.	
Speci Resul <b>Buta</b> r	It none: es of exposure	:	Does not cause	skin sensitization.	
Speci Resul <b>Buta</b> Route	It none: es of exposure ies od	:	Does not cause Skin contact Guinea pig OECD Test Guin		

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Not c	n <b>cell mutagenicity</b> lassified due to lack of <b>ponents:</b>	data.		
dime	thyl phthalate:			
	toxicity in vitro	:	Method: OECD T Result: negative	est Guideline 471
			Method: OECD T Result: negative	est Guideline 473
			Method: OECD T Result: positive	est Guideline 476
Geno	toxicity in vivo	:	Test Type: Chrom Species: Rat Application Route Result: negative	nosomal aberration : Intraperitoneal
			Test Type: Micron Species: Mouse Application Route Result: negative	nucleus test : Intraperitoneal injection
2-But	tanone, peroxide:			
	toxicity in vitro	:	Method: OECD T Result: negative	est Guideline 473
			Method: OECD T Result: negative	est Guideline 471
			Method: OECD T Result: negative	est Guideline 476
Trim	ethylpentanediol isob	outvra	ite:	
	toxicity in vitro	:	Test Type: In vitro	o mammalian cell gene mutation test fest Guideline 476
			Test Type: Ames Method: Regulatio (Ames test) Result: negative	test on (EC) No. 440/2008, Annex, B.13/14
				nosome aberration test in vitro Test Guideline 473

#### Butanone:

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Geno	toxicity in vitro		od: OECD t: negative	Test Guideline 471
			od: OECD t: negative	Test Guideline 476
			od: OECD t: negative	Test Guideline 473
Geno	toxicity in vivo	Applie Methe		ite: Intraperitoneal Test Guideline 474
Hvdre	ogen peroxide:			
	toxicity in vitro	Resul positi	t: negative ve	terial reverse mutation assay (AMES) e nation taken from reference works and the
		literat		
		Metho Resul	d: OECD t: positive urks: Inforr	omosome aberration test in vitro Test Guideline 473 nation taken from reference works and the
Geno	toxicity in vivo	: Test cytog Speci Metho Resul	Type: Mar enetic ass es: Mouse od: OECD t: negative	e (male and female) Test Guideline 474
	cell mutagenicity - ssment	: Base	d on availa	able data, the classification criteria are not met.
Carci	nogenicity			
Not c	lassified due to lack of	data.		
<u>Com</u>	ponents:			
dime	thyl phthalate:			
Speci		: Rat		
Applic	cation Route		contact ) Test Gu	ideline 451
Resu		: negat	-	
Domo	arl.o	, Dooo	d on data	from cimilar motorials

### 2-Butanone, peroxide:

Remarks

: Based on data from similar materials





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Rema	ırks	:	This information	is not available.
-	<b>ogen peroxide:</b> nogenicity - Assess-	:	Carcinogenicity	classification not possible from current data.
Susp	oductive toxicity ected of damaging fertili	ty or	the unborn child	
<u>Com</u>	<u>oonents:</u>			
	thyl phthalate: s on fertility	:		te: oral (gavage) Test Guideline 440
Effect	s on fetal development	:	Developmental	te: Ingestion / Maternal: NOAEL: 840 mg/kg body weight Toxicity: NOAEL: 3,570 mg/kg body weight Test Guideline 414
2-But	anone, peroxide:			
	s on fertility	:	General Toxicity	te: oral (gavage) / Parent: NOAEL: 50 mg/kg body weight Test Guideline 421
Trime	ethylpentanediol isobu	itvra	te ·	
	s on fetal development	:	Test Type: One Species: Rat Application Rou	Test Guideline 414
Repro sessr	oductive toxicity - As- nent	:	evidence of adv	amaging fertility or the unborn child., Some erse effects on sexual function and fertility, opment, based on animal experiments.
Butar	none:			
	s on fertility	:	General Toxicity General Toxicity Method: OECD	te: oral (drinking water) / Parent: NOAEL: 10,000 mg/l / F1: NOAEL: 10,000 mg/l Test Guideline 416 d on data from similar materials





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			General Toxicity F Method: OECD Te	: oral (drinking water) Parent: LOAEL: 20,000 mg/l est Guideline 416 on data from similar materials
Effects	s on fetal development	:	weight	Maternal: NOAEC: ca. 1,002 mg/kg body DAEC Parent: ca. 1,002 mg/kg body weight
Hydro	gen peroxide:			
-	ductive toxicity - As-	:	No data available	
	-single exposure assified due to lack of d	ata.		
<u>Comp</u>	onents:			
Butan	ione:			
Asses	sment	:	May cause drowsi	ness or dizziness.
Target	<b>ogen peroxide:</b> Organs ssment	:	Respiratory Tract May cause respira	atory irritation.
	-repeated exposure assified due to lack of d	ata.		
<u>Comp</u>	onents:			
<b>Hydro</b> Rema	<b>ogen peroxide:</b> rks	:	No data available	
Repe	ated dose toxicity			
<u>Comp</u>	onents:			
Specie NOAE Applic	L ation Route sure time		Rat 770 mg/kg Oral 16 w OECD Test Guide	line 408

according to the Hazardous Products Regulations





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#### 2-Butanone, peroxide:

Species NOAEL Application Route Exposure time Method	: Rat : 200 mg/kg : oral (gavage) : 28 d : OECD Test Guideline 407
Repeated dose toxicity - Assessment	: Harmful if swallowed., Harmful if inhaled.
Hydrogen peroxide:	
Species NOAEL Application Route Exposure time Remarks	<ul> <li>Mouse, female</li> <li>37 mg/kg</li> <li>oral (drinking water)</li> <li>90 d</li> <li>Hydrogen peroxide (H2O2), 35%</li> </ul>
Species NOAEL Application Route Exposure time Remarks	<ul> <li>Mouse, males</li> <li>26 mg/kg</li> <li>oral (drinking water)</li> <li>90</li> <li>Hydrogen peroxide (H2O2), 35%</li> </ul>

#### Aspiration toxicity

Not classified due to lack of data.

#### Components:

**dimethyl phthalate:** No aspiration toxicity classification

## Trimethylpentanediol isobutyrate:

Not classified due to data which are conclusive although insufficient for classification.

#### Hydrogen peroxide:

Based on available data, the classification criteria are not met.

#### **Further information**

## Product:

Remarks : No data available

#### Components:

#### dimethyl phthalate:

Remarks : No data available

according to the Hazardous Products Regulations



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#### Trimethylpentanediol isobutyrate:

Remarks : No data available

#### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

#### Components:

#### dimethyl phthalate:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 39 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): > 52 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 260 mg/l Exposure time: 72 h
Toxicity to fish (Chronic tox- icity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 11 mg/l Exposure time: 102 d Method: OECD Test Guideline 210
		LOEC (Oncorhynchus mykiss (rainbow trout)): 24 mg/l Exposure time: 102 d Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chron-ic toxicity)	:	NOEC (Daphnia magna (Water flea)): 9.6 mg/l Exposure time: 21 d
		LOEC (Daphnia magna (Water flea)): 23 mg/l Exposure time: 21 d
Toxicity to microorganisms	:	EC50: 4,100 mg/l Exposure time: 0.5 h Method: OECD Test Guideline 209
2-Butanone, peroxide:		
Toxicity to fish	:	LC50 (Poecilia reticulata (guppy)): 44.2 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
		NOEC (Poecilia reticulata (guppy)): 18 mg/l Exposure time: 96 h Method: OECD Test Guideline 203





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		to daphnia and other invertebrates	:	EC50 (Daphnia m Exposure time: 48 Method: OECD Te	
				NOEC (Daphnia n Method: OECD Te	nagna (Water flea)): 26.7 mg/l st Guideline 202
	Toxicity plants	to algae/aquatic	:	EC50 (Pseudokirc mg/l Exposure time: 72 Method: OECD Te	
				NOEC (Pseudokire mg/l Exposure time: 72 Method: OECD Te	
	Toxicity	to microorganisms	:	EC50 (Bacteria): 4 Exposure time: 0.4 Method: OECD Te	5 h
	Trimetl	hylpentanediol isobut	tyra	te:	
	Toxicity	to fish	:	NOEC (Fish): >= 6 Exposure time: 96 Method: OECD Te	h
		to daphnia and other invertebrates	:	EC50 (Daphnia): > Exposure time: 48	
				NOEC (Daphnia): Exposure time: 21	
	Toxicity plants	to algae/aquatic	:	EC50 (Chlorella p Exposure time: 72 Method: OECD Te	
		to daphnia and other invertebrates (Chron- ty)	:	LOEC (Daphnia m Exposure time: 21	agna (Water flea)): 0.7 mg/l d
	Ecotox	icology Assessment			
		quatic toxicity	:	This product has r	o known ecotoxicological effects.
	Chronic	aquatic toxicity	:	Harmful to aquatic	life with long lasting effects.
	Butano	ne:			
	Toxicity	to fish	:	LC50 (Pimephales Exposure time: 96	promelas (fathead minnow)): 2,993 mg/l h

according to the Hazardous Products Regulations





2,029
mg/l
mg/l
mg/l
r

#### Trimethylpentanediol isobutyrate:

according to the Hazardous Products Regulations





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Biodegradability		:	Result: rapidly Exposure time Method: OECE	
	n <b>one:</b> egradability	:	Result: Readily Method: OECD	biodegradable. Test Guideline 301D
-	ogen peroxide: gradability	:	Result: Readily	biodegradable.
Bioa	ccumulative potentia	I		
Com	<u>ponents:</u>			
dime	thyl phthalate:			
Bioac	cumulation	:		on factor (BCF): 57 9 Test Guideline 305
	ion coefficient: n- ol/water	:	log Pow: 1.54	
Partit	anone, peroxide: ion coefficient: n- ol/water	:	log Pow: < 0.3	(25 °C)
Trime	ethylpentanediol isob	outyra	te:	
Bioac	cumulation	:	Species: Fish Bioconcentratio	on factor (BCF): 1.95
	ion coefficient: n- ol/water	:	log Pow: 4.91	(25 °C)
Buta	none:			
Partit	ion coefficient: n- ol/water	:	log Pow: 0.3 (4	0 °C)
Hydro	ogen peroxide:			
	ion coefficient: n- ol/water	:	- 3	(20 °C) mation refers to the main ingredient.
	lity in soil ata available			

No data available

according to the Hazardous Products Regulations





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adverse effects			
uct:			
Additional ecological infor- mation Components:		unprofessional	tal hazard cannot be excluded in the event of handling or disposal. c life.
thyl phthalate:			
onal ecological infor- n	:	No data availat	le
	07/25/2024 <b>adverse effects</b> <u>uct:</u> onal ecological infor- n <b>conents:</b> <b>thyl phthalate:</b> onal ecological infor-	07/25/2024 600 r adverse effects uct: onal ecological infor- n conents: thyl phthalate: onal ecological infor- :	07/25/2024 60000000100  r adverse effects uct: onal ecological infor- n : An environment unprofessional Toxic to aquation conents: thyl phthalate: onal ecological infor- : No data availab

Waste from residues	<ul> <li>Dispose of wastes in an approved waste disposal facility. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container.</li> </ul>	
Contaminated packaging	<ul> <li>Dispose of in accordance with local regulations. Clean container with water. Dispose of contents/ container to an approved waste dispose plant.</li> <li>Empty remaining contents.</li> <li>Dispose of as unused product.</li> <li>Do not re-use empty containers.</li> <li>Do not burn, or use a cutting torch on, the empty drum.</li> </ul>	al

#### SECTION 14. TRANSPORT INFORMATION

## International Regulations

l	J١	<b>N</b>	R	Γ	D	C	3		
	1.					- 1	-		

UN number	:	UN 3105
Proper shipping name	:	ORGANIC PEROXIDE TYPE D, LIQUID
		(METHYL ETHYL KETONE PEROXIDE(S))
Class	:	5.2
Packing group	:	Not assigned by regulation
Labels	:	5.2
Environmentally hazardous	:	no
IATA-DGR		
UN/ID No.	:	UN 3105
Proper shipping name	:	Organic peroxide type D, liquid (Methyl ethyl ketone peroxide(s))
Class	:	5.2

according to the Hazardous Products Regulations



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Lak Pa airo Pa	Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passen- ger aircraft)		Not assigned by r Organic Peroxides 570 570	egulation s, Keep Away From Heat
UN Pro Cla Pa Lat Err	DG-Code I number oper shipping name ass cking group bels nS Code rine pollutant			XIDE TYPE D, LIQUID KETONE PEROXIDE(S)) egulation

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### Domestic regulation

TDG	
-----	--

UN number Proper shipping name	:	UN 3105 ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))
Class Packing group Labels	:	5.2 II 5.2
ERG Code Marine pollutant	:	145 no

#### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### SECTION 15. REGULATORY INFORMATION

NPRI Components	:	dimethyl phthalate Butanone
International Regulations		
Gefahrgruppe nach TRGS 741	: Ib	(German regulatory requirements)
The ingredients of this produ	ıct	are reported in the following inventories:
TCSI (TW)	:	On the inventory, or in compliance with the inventory
TSCA (US)	:	All substances listed as active on the TSCA inventory

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AIIC (AU)		:	All components are listed on the inventory, regulatory obligations/restrictions apply		
DSL (CA)		:	All components of	f this product are on the Canadian DSL	
ENCS	(JP)	:	On the inventory,	or in compliance with the inventory	
ISHL (	JP)	:	On the inventory,	or in compliance with the inventory	
KECI (	KR)	:	On the inventory,	or in compliance with the inventory	
PICCS	(PH)	:	On the inventory,	or in compliance with the inventory	
IECSC	(CN)	:	On the inventory,	or in compliance with the inventory	
TECI (	TH)	:	On the inventory,	or in compliance with the inventory	

#### Canadian lists

No substances are subject to a Significant New Activity Notification.

#### **SECTION 16. OTHER INFORMATION**

#### **Further information**

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

These safety instructions also apply to empty packaging which may still contain product residues. The hazards on the label also apply to residues in the container.

Sources of key data used to : compile the Material Safety	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-
Data Sheet	cy, http://echa.europa.eu/

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Date format	:	mm/dd/yyyy

Full text of othe	r abbreviations
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ACGIH ACGIH BEI		USA. ACGIH Threshold Limit Values (TLV) ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL CA QC OEL		Canada. British Columbia OEL Québec. Regulation respecting occupational health and safe-

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ACGI ACGI CA A CA A CA A CA B CA B CA B CA Q CA Q	H / TWA H / STEL H / C B OEL / TWA B OEL / STEL B OEL / (c) C OEL / TWA C OEL / STEL C OEL / C C OEL / TWAEV C OEL / STEV C OEL / STEV	borne contami 8-hour, time-w Short-term exp Ceiling limit 8-hour Occupa 15-minute occ ceiling occupa 8-hour time we short-term exp ceiling limit	eighted average posure limit ational exposure limit upational exposure limit tional exposure limit sighted average osure limit average exposure value

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AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals: OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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