

#### CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by ALC.T.E. New DelhL Recognised by UGC Under Section 2(f) Bommanahali, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theckford.edu Web: www.theckfordengg.org

# Agreements and MoUs

# Index

Sl.no	Particulars	Year	Page No
1.	Bio- Medical wastes - Agreements and MoUs	2022-2023	3-5
2.	Pollution Control Board	2021-2027	6-10
3.	E-Waste Disposal - Agreement	2022-2026	11-16
4.	SOP For Disposal and Liquid Waste	2021-2022	17-24



1

1

The Oxford College of Engineering Bommanahalli, Hosur Road Bengaluru - **5**60 068



CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

The sister concerns, The Oxford College of Engineering and Oxford Dental College are situated next to each other in same campus. The Biomedical Wastes produced by these two institutes are handled by same vendor (MARIDI) for further processing. Hence the agreements and MoUs remains same for both the institutes.



PRINCIPAL The Oxford College of Engine Arm Bommanahalli, Hosug Rc ... Bengaluru-560 068



00

CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

# Bio-Medical wastes Agreements and MoU's for 2022-2023



# MEMORANDUM OF UNDERSTANDING Reg.No: 338

M/s. Maridi Bio Industrics Pvt Ltd., having its registered office at No .8, SUNAGA ARCADE, 4<sup>th</sup> Floor, 1<sup>st</sup> Main, 8<sup>th</sup> Cross, S.R.nagar, Bangalore-560027, Phone No: 080-41512958/22103270, Email id: <u>maridibmw@maridibio.com</u> and having Its Plant at Sy.No.1/37 & 1/38, 35<sup>th</sup> Milestone, Gabbadi Kaval, Kanakapura Road, Ramanagar District, here in after referred to as, M/s. Maridi Bio Industries Pvt Ltd. represented by its Authorized Signatory and M/s. OXFORD DENTAL COLLEGE - BOMMANAHALLI having its centre at bommanahalli circle, bangalore-560068. mobno:9980135517. Email; principal oxforddental@yahoo.com. Here in after referred to as M/s. OXFORD DENTAL COLLEGE - BOMMANAHALLI is hereby agreed and come to the Memorandum of Understanding on this 15<sup>th</sup> Day of September month year 2022 as detailed below:

- a. M/s. Maridi Bio Industries Pvt Ltd. with consent from Karnataka State Pollution Control Board is having a common treatment facility for Managing Bio-Medical Waste in Ramanagaram district at 36<sup>th</sup> Mile Stone, Kanakapura Road. The facility is having a state of art Auto clave system along with the shredder and Incinerator.
- b. M/s. OXFORD DENTAL COLLEGE BOMMANAHALLI gives its biomedical waste properly packed in color-coded bags as per pollution control Board regulations for treatment and final disposal to M/s. Maridi Bio Industries Pvt Ltd. The waste should be given at one single point by the M/s. OXFORD DENTAL COLLEGE - BOMMANAHALLI at given time of M/s. Maridi Bio Industries Pvt Ltd. Vehicle.

c. UUUUSTRISPUT \* OLIV

c. M/s. Maridi Bio Industries Pvt Ltd. will charge a price of Rs.9680/-Per Month (Rupees nine thousand six hundred and eighty only); (Up to 100 kgs per month, if it exceeds Rs.65/- per Kg will be charged

-1 PRESIDENT Children's Education Society (R) 1st Phase, J.P. Nagar, Ba : anlore - 560 078.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

**extra**),(GST Extra as applicable) (Excluding Poly bags) transportation, treatment and final disposal of biomedical waste. This Price will be fixed for a period of one (1) year from date of this agreement and thereafter there will be 12% (Twelve Percent) escalations in the price for every one-year on existing rate.

- d. M/s. **OXFORD DENTAL COLLEGE BOMMANAHALLI** will not enter into any agreement with any other party or organization for the waste treatment and disposal unless cancel of this agreement.
- e. M/s OXFORD DENTAL COLLEGE BOMMANAHALLI is assuring that payment should be made through Account Payee cheque In favour of M/s. Maridi Bio Industries Pvt Ltd. on or before 5<sup>th</sup> of every month.
- M/s. Maridi Bio Industries Pvt Ltd. is not responsible for any cash payments and also we will collect cheque bounce charges.
- g. In case of non-receipt of payment on the agreed date from M/s. OXFORD DENTAL COLLEGE - BOMMANAHALLI M/s. Maridi Bio Industries Pvt Ltd., will stop the collection of waste immediately with intimation to Karnataka State Pollution Control Board. The delayed payments will be collected with an interest of 18% per annum.
- h. M/s. Maridi Bio Industries Pvt Ltd. will collect bio medical Waste daily <u>(Except Sunday)</u> and treat the waste as per the regulations. M/s. Maridi Bio Industries Pvt Ltd. will not collect any General waste that is not segregated or not properly packed M/s. Maridi Bio Industries Pvt Ltd. will not collect general garbage.
- i. M/s. Maridi Bio Industries Pvt Ltd. will issue a proof of waste collection from M/s. OXFORD DENTAL COLLEGE - BOMMANAHALLI as per your declarations in the application form. This will help the individual Clinic for getting compliance with the State Pollution Board. The individual Clinic/Nursing home can take their Authorization from the pollution control board by informing the board that M/s Maridi Bio Industries Pvt Ltd. treats their waste (The same has to be mentioned in the Authorization Form.
- j. In case OXFORD DENTAL COLLEGE BOMMANAHALLI find any irregularities in collection of waste, they can send a notice in writing to M/s. Maridi Bio Industries Pvt Ltd. for immediate action.
- k. M/s Maridi Bio Industries Pvt Ltd. will maintain their plant in good running condition all the time and ensure continuity of service as per agreement with your OXFORD DENTAL COLLEGE -BOMMANAHALLI.



This Memorandum of understanding is entered into on the express understanding that M/s Maridi Bio Industries Pvt Ltd. will maintain

PRESIDENT Children's Education Society (R) 1st Phase, J.P. Nagar, Be 1galore - 560 078.

Ŧ



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

and run the facilities and collect transport and treat the waste at their plant strictly in accordance with the consent of the Karnataka State Pollution Control Board and it shall be the responsibility to obtain the consent and keep the same always current.

- m. In case of violation of any of the agreed condition of the MOU by either side. Issue of notice may terminate this MOU three months in advance by either party for terminating their respective obligations.
- All disputes to this understanding are subject to the Jurisdiction of the court in Bangalore only.
- o. MOU Renewal Charges of Rs.200 (GST 18% Extra).
- p. This Agreement is effective from 01.09.2022 TO 31.08.2023.

DUSTRE For M/s. Maridi Bio Industries Pvt Ltd



For M/s OXFORD DENTAL COLLEGE - BOMMANAHALLI

1

1

Au<del>lharismSElig</del>natory Children's Education Society (R) 1st Phase, J.P. Nager, Bangalore - 560 078.



5



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bormanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

# Pollution Control Board from 2021-2027

	Lonsent For Est	Abistiment-Expand E-EXP)	Kormataka State Pollation Control Road	6
1919	Consent No. CTE-3		Parisana Baryana, No 47, Churr Street, Bengahura-S600	
Anna	upto: 11/04	2027	Tele: 098-25585112.0, 255813	d.
	Industry Colour: RED Industry	Scale LARGE	Fav-min-255m3 emnil id: boor Lypels gos	
	A service of the serv			
	the same in the		escluding additional conditions)	
	Consent Order No: CTE-330840	i PCB	ID: 16080 Date: 12/04/2022	
	To,			
	The Applicant,			
	Oxford Educational Institutions			
	Sr.			
	Sub Concert for Town			
	Act, 1974 & the Air (Preven	tion & Control of Polluti	emises under the Water (Prevention & Control of Pollution) on) Act, 1981	
			anization on 18/11/2021 at Regional Office KSPCB	
	2.Inspection of the project Officer	sile by Regional	on 22/12/2021	
	3.Proceedings of the ECA With reference to the above Kam	Toble 24/02/2022 held o	m16/02/2022	
	the existing premises under the Wi Pollution) Act, 1981 at the location	ater (Prevention & Contra a indicated below subject	ntrol Board hereby accords Consent for Expansion of the unit of Pollution) Act, 1974 & the Air (Prevention & Control of t to the terms & conditions indicated in Schedule Amerced.	în
	ablation:		and a sense of the	
	Name of the Industry: Oxford	Educational Institutions		
	Address: Sy. No.	4/1, 4/88, 4/8A & 4/9, 5	/1, 5/2A, 5/2B, 4/7, 7/1B & , 7/2 of Bommanahalli, Hosur Road	r
	not in	LA,	Bangalore,	
	Talulc BBMP- CONDITIONS:	W- 175,	District: Bangalore Urban	
		2 2 2 2 2 C		
	1. The Consent for Expansion is	granted considering the f	ollowing activities.	
	<ol> <li>This consent for establishment</li> <li>The provision of all</li> </ol>	is valid up to 11/04/202	from the date of issue	
	<ol> <li>The applicant shall obtain nece law.</li> </ol>	ke further expansion/div ssary license/clearance fi	ersification without the prior consent of the Board, room other relevant stanmory agencies as required under the	
	I. WATER CONSUMPTION:			
	1. The source of water shall be fi			
			and shall obtain prior permission from the concerneds	
	authority. Total water concumption	shall not exceed as indic	ated below	
9				
	Page-1 c_outwardno49910-12/04/2	022	Printed through XGN	

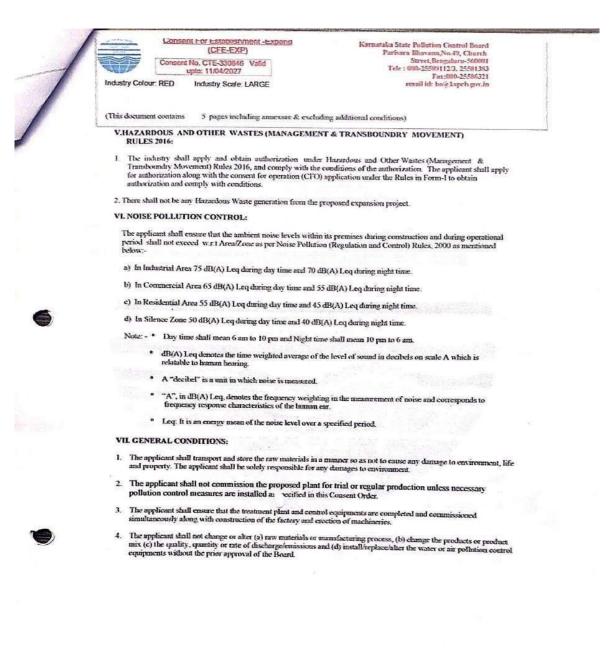


(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bornmanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

And a second second	Lonsent For Establishment -Expond (CFE-EXP) Rarmataka State Pollution Control Based Parisona Bhavana, No. 47, Church	TIMP 3
	Consent No. CTE-330846 Valid uptr: 11/04/2027 Fm: 090-2559/3112/3, 2558/38/3	
	Industry Colour RED Industry Scale LARGE email id: hwie kspelieger.in	
	(This document contains 5 pages including amesure & excluding additional conditions)	
	II. WATER POLLUTION CONTROL: 1. The discharge from the premises of the applicant shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.	
	<ol><li>The sewage/domestic efflluent shall be treated in Septic Tank with Soak pit.No overflow from the soak pit is allowed. The septic tank and Soak pit shall be as per IS 2470 Part-I &amp; Part-II.</li></ol>	
	<ol><li>The Effluent Treatment Plant proposal is generally agreeable and shall be constructed as per the specifications mentioned in the proposal and it shall consist of following units.</li></ol>	
	4. The industry shall treat the domestic wastewater in the Sewage Treatment Plant (STP) as per the proposal submitted. It shall meet the standards specified in Annexore-I & shall be used on land for gardening/groenbelt within the factory premises.	
	5. If the treatment plant does not achieve the effluent standards stipulated in this consent order and/ or if it is found to be inadequate, then the industry shall have to modify the units so as to meet the standards with prior consent of the Board.	
	6.All the treatment units shall be totally impervious.	
	7.The applicant shall provide separate flow meter for measuring the quantity of effluents through ETP and separate energy meter and shall maintain a logbook for the verification of inspecting officers.	(
	8 The applicant shall operate and maintain Treatment Plant continuously and maintain at all times to achieve the stipulated standards as per Amervure-I & also maintain regular log-books/operation records.	
	9. There shall not be any increase in generation of Domestic sewage due to proposed expansion.	
	<ol> <li>There shall be no bypass or discharge of effluents either within or outside the factory premises under any circumstances.</li> </ol>	
	<ol> <li>There shall not be any discharge of untreated trade/domestic sewage inside/outside the industry premises.</li> </ol>	
	12 The applicant shall explore the possibility of reducing freshwater consumption & adopt recycling/reuse.	
	III. AIR POLLUTION CONTROL:	
	<ol> <li>The type of emissions, stack heights and the air pollution control equipment for the air pollution control sources to be installed as specified in Annexure-II.</li> </ol>	
	<ol><li>The discharge of emissions from the air pollution sources shall pass through the stacks/chimneys mentioned in Anecure-II where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.</li></ol>	
	<ol><li>The stacks shall have port holes and platforms as per the guidelines specified in Annexure-II to facilitate monitoring of emissions.</li></ol>	
	<ol><li>The applicant shall upgrade/modify/replace the control equipments if they are found inadequate to meet the standards stipulated with Prior permission of the Board shall be obtained for the same.</li></ol>	•
	<ol><li>There shall not be any other sources of air pollution from the proposed expansion.</li></ol>	
	6. If there is going to be any new air pollution sources in future, the project authorities shall apply and obtain consent for establishment for the same from the Board.	
	<ol> <li>Any fugitive emission has to be controlled to meet the ambient air quality standards</li> <li>IV. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:</li> </ol>	
	<ol> <li>The applicant shall collect, treat and dispose off all solid waste generated during construction i.e. Mock, and Garbage after construction if any in such manner so as not to cause environmental pollution.</li> </ol>	
	<ol> <li>The details of solid waste generated from the expansion activity shall be as follows</li> </ol>	



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

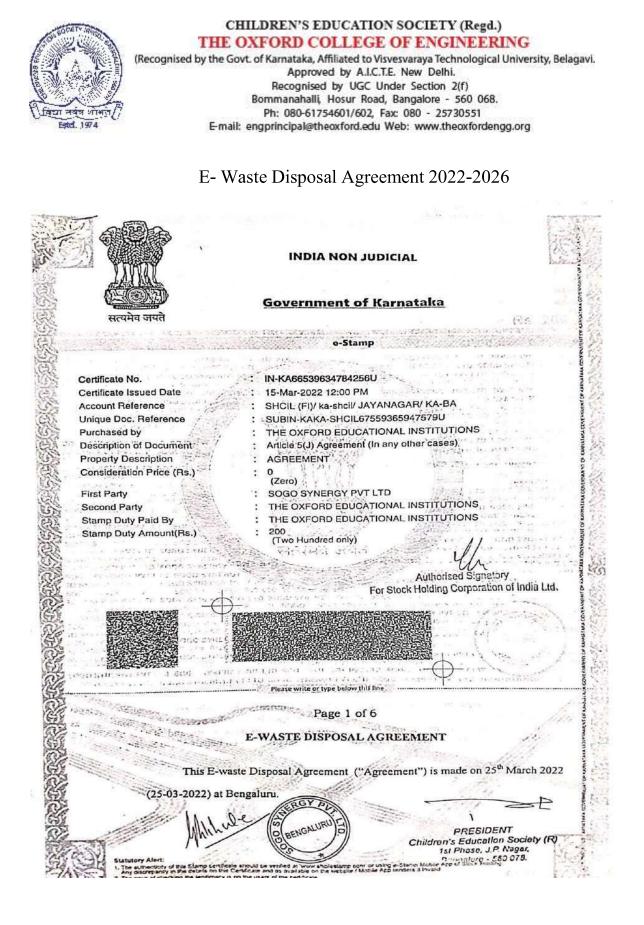


Printed through XGN

PODETY GOA		CHILDREN'S ED	UCATION SOCIET	ΓY (Regd.)	
1 Alera		E OXFORD CO			
E States				echnological University, B	elanavi
	(Recognised by the		by A.I.C.T.E. New Del		elagavi.
			by UGC Under Section		
B. C. S. S. S.			losur Road, Bangalore		
P farm and within P			601/602, Fax: 080 - 2		
Feter 1974	E.,	mail: engprincipal@theo			
	E	nan, engprincipalærner	utora.edu web. www.	theomordengg.org	
1	Consent For	Estepristiment -Expand	Karnataka State Pollat	tion Control Board 2003, No. 49, Church	and and
	80.714	CFE-EXP)	Street	LEengaluru-560001	
	Consent NO. C upto: 1	TE-330846 Valid 1/04/2027		589112/3, 25581383 Fax:080-25586321	
ξ.	idustry Colour RED Indu	stry Scale: LARGE	erry and 10	l: horë kopelagovin	
Q		pages including annexate & exclud diately report to the Board of any a		mathing in polyage of discharge	
	of effluents or emissions or si	diately report to the Board of any a olid wastes etc. in excess of the star eventive actions under intimation.	idents of unforescent act of even idends stipulated. And the industry	v shall immediately take	
	applicant/occupier as the case	reinstate or restore, damaged or des e may be shall be liable to pay the e Competent Agency or Committee.	thire cost of remediation or restor	a his cost, failing which, the ation in advance an amount	
	(+12) (+1) (202) (0.5) (0.5) (12)	ight to review, impose additional co		ange or alter the terms and	
	<ol> <li>This CFE does not give a necessary for setting/operation</li> </ol>	my right to the Party/Project Autho m of the plant.	sity/Industry to forego 209 other le	egal requirement that is	
	9. The applicant shall furni	sh point wise compliance to the con	ditions given under this consent fr	or establishment within 30 days.	
	10. The applicant shall tak	e measures to develop green bel	t all along the periphery of the f	factory premises	
	11. This consent is issued	without prejudice to any Court	Cases pending in any Hon ble C	ourt	
	12. The applicant shall con	aply with all the Conditions and	guidelines issued by the Board	from time to time.	6
	the industry and does no consents of the Board for di	consent for establishment issued to 1 give any right to proceed trial/ scharge of liquid effluent and the er- t fee. The application forconsent ha	regular production. For this purp missions to the air shall have to be	pose, separate obtained by	
	The receipt of this letter ma	y please be acknowledged.			
	It. see a second of	and and a second	· · · · · · · · · · · · · · · · · · ·	1	AL CONTRACTOR
		Consent Fee paid	: Rs. 125000		
	NOTE:		- A Contraction of the Contracti	1	
	C NUMPERSON DE LA CONTRACTA DE	d in the schedule are not applicable			
	Additional Conditions:	to it the setucian are new opproxime	S. C.S. Marker		
		(1) & VII(4) these conditions are mi	at applicable		
		strictly comply with the conditions s			-
		e recommendations of the Enforcer			
	duly approved by Member S	Secretary & Hon'ble Chairman.	HOR COMMERCIAL INCOMING FIELD ON 1	2018 Toth Hebruery 2022 8	
			FOR AND ON BEHA	ALF OF	
			KARNATAKA STATE POLLUT		
		Br	ARD	Second States	
	Encl.: Annexare-I & IL				
50	e_outwardno49910-	12/04/2022		Printed through XGN	
1.		mys Jauaz		and a subscript with	
		and the second second		<i>u</i>	
					1

9

नवंश गोमत्। स्रो. 1974	1) 学		I		Approve Recognised Bommanahalli, Ph: 080-6175 ngprincipal@the	Hosur Roa 4601/602,	Under Sec ad, Bangal Fax: 080	ction 2(f) ore - 560 - 2573055	1
			onsent No. uptr ED Ir	(CFE-EX CTE-33084 t: 11/04/202 adustry Scale	15 Valid 7		Parisar Tele :	email ick hove ky	9, Church ru-560001 ,25581383 -25586321
Į.		OPY TO:							
	I. M		(Dispute)		Regional Office Bang	alore Bomman	ahalii for inform	nation and nece	esaty action.
		Chimne y attached to	KVA	Minimum chimney height to be provided above ground kevel (m Mhs)	Constituents to be controlled in the emission	Tolerance Imits mg/NMB	Forl	Control equipment to be installed,in addition to chimney	Date of which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney brights conforming to stipulated lecights.
	Note: NA LOCA	Not		PORTHOLF	8 PM(mg/MM3),SO2 (PPM),NOx(PPM) S.PLATFORMS,ELECT oach platform:	150, 100,50 RICAL OUTLET		NÁ	Before commissioning.
	sampl diame selecte	ing points ter downs ed port h	s. The sam stream from as to be at	npling point n any flow o least 2 stack	II Chimneys, stacks a should be located at a disturbance such as ben o'duct diameter before acter can be calculated	distance equal el, expansion, e stack/duct exit e	to at least eigh contraction and or from any oth	at times the sta visible flame. I	ek or duct further, the
		-			2 (Length x Width)				
	<b>э</b> т	No. of Contract	alent Dia		(Length + Width) ort should not be less	than 100mm	dia" tanana	wate should be	
	porthe 3. A the pa	ole is close an easily : ortholes s	ed finnly o accessible shall be pr	turing the no platform to ovided. Ar	an sampling period. o accommodate 3 to trangements for an El wided at the Porthole	4 persons to co lectric Outlet F	onveniently m		
					lequate safety features		ch the monitori	ng location with	CISC.
1					*				
	*								
		<u>8</u>							
							Digitally sig	Not Verifi ned by 04 12 11:29:1	





(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



Page 2 of 6

#### BY AND BETWEEN:

Sogo Synergy Pvt. Ltd., (A Company registered under Companies Act, 2013) 3<sup>rd</sup> Floor, D-1/1, Hayes Court, Richmond Town, Bengaluru – 560 025 Represented by its Vice-President G.R. LAWHALE, Mob No. 9538011011

hereinafter called as "Sogo Synergy" which expression wherever the context so requires or admits, shall mean and include its respective heirs, legal representatives, administrators, executors and assigns or any person claiming through or under it.

#### AND

The Oxford Educational Institutions Hosur Road, Bommanahalli Campus, Bengaluru – 560 068 Under the aegis of Children's Education Society® (A Society registered under Karnataka Societies Registration Act, 1960) 30<sup>th</sup> Main, 1<sup>et</sup> Phase, JP Nagara, Bangalore- 560 078 PAN AAATC1553A represented by its President SNVL Narasimha Raju Mob No. 9845037176

hereinafter called as "Society" which expression wherever the context so requires or admits, shall mean and include its respective heirs, legal representatives, administrators, executors and assigns or any person claiming through or under it.

Whereas the Society has IT and all electrical, electronic products/service related hardware material or any other material as may be specified by the Society (the "Material" as hereinafter defined) that it may from time to time wish to dispose off, and SOGO SYNERGY desires to execute a complete dismantling & disposal program on behalf of the Society;



١

PRESIDENT Children's Education Society (R) 1st Phase, J.P. Nagar, Econgatore - 560 078.

12



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

# Page 3 of 6

Now, therefore, Society shall provide and SOGO SYNERGY shall dismantle & dispose off the Material in accordance with the following terms of this Agreement:

#### Waste Material

1. Waste Material is hereinafter defined as waste of all forms of electronics equipment, IT equipments like Desktops, Monitor, Servers, Modems & Converters, Switches, ADSL, CPE Telecommunication equipments including but not limited to E-waste in the form of desk tops, servers, network personal equipments, monitors, telephony, printers, faxes, copiers, data assistants process control equipment, server towers, server rack, scanners, batteries, server battery backups, uninterruptable power supplies, electronic storage media and all accessories and peripherals for above mentioned equipments including toners which Society may want to dispose.

Services

2. SOGO SYNERGY shall provide following services to collection, transportation and destruction of Waste Material from various locations of the Society. Society will notify places for pick up as per the accumulation of Waste Electrical and Electronic Equipment (WEEE) with different locations pan India collection of the Material, within 15 working days or case to case from the date of notice duly informed by Society by an authorized representative of the Society.

#### Destructions

531

3. SOGO SYNERGY shall destruct the entire quantity of Material within 30 working days of receipt of material. Society's authorized representative may also witness the destruction at SOGO SYNERGY facility located at Bengaluru. SOGO SYNERGY shall provide the Society written confirmation through "Certificate of Destruction".

#### Payment

4. SOGO SYNERGY shall bear all handling costs for the Waste Material collected from the Society in full and all costs associated with the provision of the Services rendered. SOGO SYNERGY shall pay the Society, for the E-waste collected from the Society as per the rates on the basis of case to case inclusive of all taxes.



at the o

en esperi del con di e pre a succión d

۱

PRESIDENT Children's Education Society (R) 1st Phase, J.P. Nagar, Bangalore - 560 078.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

#### Page 4 of 6

#### Warrantee

5. SOGO SYNERGY Representation and Warranties -

5.1 While performing all Services hereunder, SOGO SYNERGY agrees to comply with all applicable permits, all Central, State and local laws, regulations and ordinances and all duly constituted authorities upon request of the Society.

5.2 SOGO SYNERGY shall furnish copies thereof in advance. SOGO SYNERGY hereby specifically agree and confirm that it is fully competent to undertake this work from the Society in terms of the "E-waste (Management and Handling) Rules, 2016" and it possesses all the certificates mentioned under the said Rules.

5.3 SOGO SYNERGY will be responsible for the statutory compliances including environmental compliances pertaining to the activities and Services mentioned above, "E-waste (Management and Handling) Rules, 2016" and the Society will not in any way be responsible for the same once the Waste Material is handed over by the Society to SOGO SYNERGY.

5.4 SOGO SYNERGY has obtained all necessary permits, licenses and other central, state or local authorizations required to perform the Services and upon request of the Society, which shall also furnish copies thereof to the Society.

5.5 SOGO SYNERGY shall keep and retain adequate books and records and other documentation consistent with and for the periods required by applicable regulatory requirements and guidelines pertaining to performance of the Services required by this Agreement. The said records, books and documentation relevant to the above-said purpose shall be available for inspection by the Society upon reasonable advance notice.

5.6 SOGO SYNERGY shall not resell the Waste Material in the original form which has been collected from the Society except after totally destroying the Waste Material.

5.7 As an integral part of this Agreement, SOGO SYNERGY hereby represents that they or any of their officials or representatives shall not give or promise to give any money or gift to any employee/official of the Society to influence its decisions regarding this Agreement, nor shall they exert or utilize any unlawful influence to solicit or secure this Agreement through a promise to pay a commission, percentage, brokerage or contingent fee.

5.8 SOGO SYNERGY shall ensure that the Waste Material is transported safely and there is no leakage during transit.

۱

PRESIDENT Children's Education Society (R) 1st Phase, J.P. Neger, Eangalore - 550 078.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxford.engg.org

### Page 5 of 6

5.9 SOGO SYNERGY confirms and warrants that the Waste Material so collected by it under this Agreement shall not be misused by it directly or indirectly or dealt with in any other manner other than as expressly stated in this Agreement and agrees to indemnify the Society in case such representation/warrantics are breached.

5.10 SOGO SYNERGY shall ensure that all Government approvals, statutory compliances as per E Waste Rules as mentioned above and QEHS Quality, Environment, Health and Safety standards.

5.11 SOGO SYNERGY shall also assist the Company in maintaining records, statutorily required to be maintained in terms of the above mentioned E-waste Rules, pertaining to e-waste collected from the Society.

6. Business Continuity Management Plan

6.1 SOGO SYNERGY shall ensure that at all times it has in place and is able to implement a business continuity and disaster recovery plan which will ensure the continued performance and operational resilience of the Services/deliverables provided by SOGO SYNERGY.

6.2 SOGO SYNERGY shall be open to the audit of its business continuity arrangements by the Society as and when required by the Society.

7. Society's Representations and warranties

7.1 The Society has free and unencumbered title to all Waste Material delivered to SOGO SYNERGY pursuant to this Agreement.

7.2 The Society shall not knowingly ship Hazardous Wastes to SOGO SYNERGY pursuant to this Agreement. In the event Hazardous Wastes are identified upon receipt at or during subsequent processing, such substances shall be quarantined, in a manner sufficient to reasonably protect human health and real and personal property.

7.3 The Society shall issue all proper despatch documents (invoices, gate pass, declarations, GST forms etc.), wherever applicable, and Form 6 as per the hazardous waste manifest for transportation along with the Waste Material authorisation and ownership Transfer letter for transport.

**Period of Agreement** 

8. This agreement shall be in force for 5 years effective from 1" day of April 2022 unless and until terminated in a manner set-forth in paragraph. This Agreement may however be

PRESIDENT Children's Education Society (R) 1st Phase, J.P. Neger, 3 alts wate - 560 078.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

#### Page 6 of 6

terminated by the Society at any time during the term, without giving any advance notice to SOGO SYNERGY, in case SOGO SYNERGY fails to comply with its obligations under this Agreement.

#### **Termination of Agreement**

9. This Agreement may be terminated at any time by the Society or SOGO SYNERGY, delivering upon 30 days' written notice to the Society or SOGO SYNERGY and in the event of such termination, they will be paid for services performed or amounts due for Waste Material processed up to the date of such termination and not thereafter.

#### Modification

MANY D

10. This Agreement may not be modified, waived, or extended unless mutually agreed to in writing and it may not be terminated except as provided above. A waiver by either of them of any terms and conditions of this Agreement in one or more instances will not constitute a permanent waiver of such terms and conditions unless so stated in writing.

#### **Resolution of Disputes**

11. The Society and SOGO SYNEGRY shall endeavour to resolve any problem or divergence resulting from the interpretation or application of this Agreement in a spirit of cooperation and mutual understanding. In the event of any dispute or difference arising out of/relating to this Agreement between them, the same shall be settled by arbitration in accordance with the provisions of Indian Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof. Any dispute shall be subject to Bengaluru Jurisdictions.

IN WITNESS WHEREOF both the Society and Sogo Synergy hereto have executed this Agreement on the date first written above.

Children's Education Society® Sogo Synergy Pvt. Ltd Authorized Signatory Authorized Signatory BENGALURU SNVL NARASIMA RAJU GR LAWH President Vice-President Children's Education Society (R) 1st Phase, J.P. Nagar, Bangalore - 560 078. Witnesses Witnesse 2.

#### For and on Behalf of



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

# SOP For Disposal and Liquid Waste



CHILDREN'S EDUCATION SOCIETY (Regd.) Administrative Office : 1st Phase, J.P. Nagar, Bengaluru - 560 078. © : 080 - 61754501 - 502 Fax: 080 2654 8658 **THE OXFORD COLLEGE OF ENGINEERING** [Recognized by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi & Approved by A.I.C.T.E., New Delhi, Accredited by NAAC & NBA New Delhi and Recognized by UGC under section 2(1)] Bommanahalli, Hosur Road, Bengaluru - 560 068.

©: 080 61754601 / 602 / 604
 E-mail: engprincipal@theoxford.edu
 Web: www.theoxford.edu

#### TOCE/IQAC/SOP/2021-2022/C7/01

11/08/2021

#### STANDARD OPERATING PROCEDURES

#### SOP For Disposal & Liquid Waste

#### Sharps contaminated with Biological Waste

Sharps are items that are capable of puncturing, cutting or abrading the skin, e.g., needles, scalpel blades, slides and cover slips. Sharps are deactivated by autoclaving. Place sharps in a container that is red, rigid, puncture resistant, leak-proof and labelled with the biohazard symbol.

Autoclave your sharps container for a minimum of 30 minutes at 121°C and 15psi

\* Log the autoclave run duration, quantity of processed waste, date, and operator

- Label the sharps container with the words "autoclaved"
- Deface any biohazard symbols
- \* Dispose of the container:

a) Submit an authorized agency, Note on the request that the container has been autoclaved.

b) Leave your autoclaved container collection point to pick up by agency.



PRINCIPAL

The Oxford College of Engineering Bommanahalli, Hosur Road Benggluru-560 083

& Biotechnology Department The Oxford College of Engineer Bengalury-560 068.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



Liquid wastes, e.g., cell culture media and serum, are deactivated either by autoclaving or chemical disinfection. Most liquid wastes can be deactivated with bleach.

Chemically disinfect with a 1:10 final dilution (vol/vol) of household bleach

\* Swirl flask contents and allow a contact time of 30 minutes

Pour down a sink drain connected to the campus sewage system and flush the plumbing with an excess of water. Alternatively, liquid waste may be autoclaved for 30 minutes at

121°C and 15psi.

#### Solid Waste

Solid biological waste, e.g., pipettes, tissue culture flasks, and multiple well plates, is typically deactivated by autoclaving:

Collect solid biological waste directly into autoclavable bags

\* Tie a knot using the upper third of the bag and affix heat sensitive indicator tape near the knot

- Use a secondary container for all autoclave bags until disposal
- Ensure the autoclave operates for 30 minutes at 121°C and 15psi
- Log the autoclave run duration, quantity of processed waste, date, and operator
- Deposit the bag in the red-lidded totes designated for laboratory waste

#### List of Do's and Don'ts

#### Do's

- · Access to the laboratory is limited or restricted when experiments are in progress.
- · Should use mechanical pipetting devices.
- Should wash hand after handling the material and before the existing the laboratory.
- · Should wipe the bench with a cleaning agent.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

#### Don'ts

- · Do not do mouth pipetting.
- · Do not eat, drink, smoke, and not apply cosmetics in the work area.
- · All other tubes and tips used in the project do not come in contact with the bacteria.

## SOP For hazardous waste & hazardous chemicals

#### What is Hazardous?

This section will help you identify hazardous chemicals. The Indiana Department of Environmental Management (IDEM) and the U.S. Environmental Protection Agency (EPA) considers chemical waste hazardous if it: - exhibits certain hazardous characteristics, or - is a listed hazardous chemical.

1.1.1 Hazardous Characteristics Chemicals which have the following four characteristics are considered to be hazardous by the EPA:

- IGNITABILITY A liquid which has a flash point of less than 60 deg C is considered ignitable by the EPA. This includes almost all organic solvents. Some examples are: Ethyl ether, Methanol, Ethanol, Acetone, Toluene, Benzene, Pentane, Hexane, Skelly B, Xylene, Formaldehyde, Heptane, Ethyl Acetate, Petroleum Ether Instructions for the disposal of organic solvents.
- CORROSIVITY An aqueous solution having a pH of less than or equal to 2, or greater than or equal to 12.5 is considered corrosive by the EPA. Instructions for the disposal of concentrated solutions of acids or bases. Corrosive materials also include thionyl chloride, solid, sodium hydroxide and other nonaqueous acids or bases.
- REACTIVITY Chemicals that react violently with air or water are considered reactive by the EPA. An example is sodium metal. Reactive materials also include strong oxidizers, such as perchloric acids, and chemicals capable of detonation when subjected to an initiating source, such as old picric acid and phosphorous. Solutions of cyanide or sulfide that could generate toxic gases are also classified as a reactive by EPA.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

• TCLP TOXICITY TCLP is a laboratory test to determine leaching. Chemicals characterized as toxic by the EPA may leach into the groundwater if improperly managed. EP toxic wastes include concentrated toxic metal solutions and the following list of pesticides: Endrin Lindane 2,4-D Methoxychlor Toxaphene 2,4,5-TP Silvex Any chemical with an LD50 less than 500 mg/kg or is a carcinogen, mutagen or, teratogen eg. Furadan Oral LD50 (human) 11 mg/kg or Osium tetraoxide Oral LD50 (rat) 14 mg/kg.

1. AQUEOUS SOLUTIONS OF CHEMICALS LISTED UNDER "CHEMICALS FOR THE NORMAL TRASH"

2. VERY DILUTE AQUEOUS SOLUTIONS OF WATER-SOLUBLE ORGANIC SOLVENTS.

3. CONCENTRATED SOLUTIONS OF ACIDS OR BASES This section explains the disposal of concentrated solutions of acids, such as hydrochloric, sulfuric, and nitric and bases such as ammonium hydroxide. These solutions should be neutralized in the laboratory as described in Section 1.5 below. You should take special care when neutralizing strongly oxidizing acids such as perchloric acid and fresh chromic acid, so call RMS for additional instructions.

1.2.1 General Neutralization Procedures CAUTION: FUMES AND HEAT ARE GENERATED

I. Do your neutralizations in a well-ventilated hood and behind a safety shield.

2. Keep containers cool while neutralizing.

3. You should be wearing an apron, goggles, and gloves.

4. Perform all steps SLOWLY.

5. Neutralize concentrated solutions of acids and bases to within a pH range of greater than 2 and lower than 12.5 and then flush them into the sanitary sewer with at least twenty (20) parts of water.

1.2.2 Acid Neutralization While stirring, add acids to large amounts of an ice-water solution of base such as sodium carbonate (soda ash), calcium hydroxide (slaked lime), or 8M sodium



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

hydroxide (for concentrated acids). When a pH above 2 is achieved, dispose of the solution into the sewer system followed by twenty (20) parts of water.

1.2.3 Base Neutralization Neutralize by first adding the base to a large vessel containing water. Slowly add a 1M solution of HCL. When a pH of 12.5 is achieved, dispose of into the sewer system followed by twenty parts of water.

1.2.4 Chromic Acid 1. Alternatives to Chromic Acid Cleaning Solutions Chromic acid is a powerful oxidizing agent. It is both toxic and corrosive and can explode on contact with organic materials. Users of chromic acid cleaning solutions on campus have suffered burns to both skin and clothing. We urge you to consider the alternatives listed on the next page that clean satisfactorily and are less toxic.

1.3.1 Organic Solvents Place your organic solvents in glass bottles or carboys the solvents originally came in or in ones provided by RM&S. Don't put them in the sewer. Halogenated solvents (e.g., chloroform, carbon tetrachloride and dichloromethane) and their mixtures should be kept separate as they are more difficult to dispose of. Be sure to deface or remove original label and attach Chemical Discard tag to bottle. Call RM&S and we'll pick up your spent organic solvents and their associated organic solutes. When we pick up the solvents, the contents will then be commingled in 55 gallon drums and shipped off campus for incineration. We have to pump the contents, so they must be fluid and not contain any solids, precipitates or residues. 1. Substances That Should Not Be Put Into Solvent Waste Containers The following substances are inappropriate for incineration. Don't put them into your organic waste containers. They should be collected in separate containers. Solutions of acids or bases Aqueous solutions of toxic organic chemicals.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



# Hazardous Chemicals and Alternative Disposal Options

Benzene -Dissolve or mix with flammable solvent and then burn in pit or trench in an area at least 10 meters away from combustible material or in a 45/55- gallon drum (use slow burning to ignite).

Phenol - Low levels of solid waste (e.g. gels, contaminated paper towels etc) should be placed into a suitable, leak-tight container and then into a yellow bag and treated as clinical waste for incineration.

Phenol/chloroform - mixtures can be treated as halogenated waste solvent and disposed of accordingly lncineration is the recommended method of disposal. Dissolve the phenol with a combustible solvent and burn in chemical incinerator equipped with an afterburner or scrubber Aqueous solutions or buffer containing phenol may be disposed of in shatter proof bottle using the carrier. Low levels of solid waste (e.g. gels, contaminated paper towel) should be placed into suitable, leak-tight container and then into a yellow bag and treated as clinical waste for incineration.

If phenol waste is the solid waste form, it should be disposed buy making packages of phenol in paper or other flammable material and burning in suitable combustion chamber. If it is in a liquid form, by absorbing it in vermiculite, dry sand, earth or similar material and disposing in a secured sanitary landfill or atomizing in a suitable combustion chamber.

**Compounds** - Dilute the alkali 1 to 10 times with water (diluted alkalis are less dangerous). Select an acidic material. Strong acids (e.g., hydrochloric acid, sulphuric acid) must be diluted 1:10 or greater prior to utilization.

**Inorganic peroxides** - Add oxidizing agent to a large volume of a concentrated solution of sodium hypo-bisulfite (sodium metabisulfite) or a ferrous salt. Acidify with dilute Sulphuric acid. When reduction is complete (i.e., when heat generation stops), neutralize the solution with soda ash or dilute hydrochloric acid. Dispose off in sewersystem with a large amount of excess water.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



Acidic halides - To a large container, containing an excess of sodium bicarbonate (or sodium carbonate, or calcium carbonate), slowly add in the organic acid halide, and mix thoroughly.Dilute with water until pH of approximately 6-8 is obtained, let it stand 24 hours. Handover to a Common Effluent Treatment Plant (CETP) for treatment purposes or treat the waste as per the discharge norms prescribed for CETP. Always remember that organic halides may react violently with water. Take necessary precautions while diluting with water (wear PPE, maintain safe distance, keep first aid kit handy etc.)

**Inorganic acids** - Dilute acids 1 to 10 with water (dilute acids are less dangerous). Dilution should always be by adding acid to water (until fizzing stops), but not water to acid which should be strictly avoided Select a basic material, such as sodium bicarbonate, potassium bicarbonate, calcium bicarbonate, limestone. Strong bases (e.g., sodium hydroxide and potassium hydroxide) must be diluted 1:10 times with water prior to utilization.

Aqueous solutions of water-miscible flammable organic solvents (e.g., solutions of less than 18% acetone, ethanol, methanol and other water-soluble and water-miscible solvents\_Add solution to an available flammable solvent (acetone, acetonitrile, benzene, etc of flammability rating 2 or 3). Burn in pit or trench, in an area 10 meters away from any combustible material, or in a 45/55-gallon drum (use slow burning fuse to ignite).

**Iodine** - In the fume hood, if possible, cautiously add iodine to a solution of sodium thiosulfate (300 ml of 4%) containing sodium carbonate (0.1 g). Stir until all of the iodine has dissolved (solution becomes colorless).

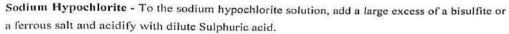
Neutralize to a maximum pH of 8.5 with sodium carbonate (if pH larger than 9, iodine will redissolve).

When reduction is complete, add sodium carbonate or dilute hydrochloric acid to neutralize the solution.

Handover to a Common Effluent Treatment Plant (CETP) for treatment purposes or treat the waste as per the discharge norms prescribed for CETP.



(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi. Approved by A.I.C.T.E. New Delhi. Recognised by UGC Under Section 2(f) Bommanahalli, Hosur Road, Bangalore - 560 068. Ph: 080-61754601/602, Fax: 080 - 25730551 E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org



When the reduction is complete, add soda ash or dilute hydrochloric acid to neutralize the solution.

Handover to a Common Effluent Treatment Plant (CETP) for treatment purposes or treat the waste as per the discharge norms prescribed for CETP.

#### Disposals of hazardous chemical wastes: Do's and Don'ts

Do's

Wear safety equipment like gloves, boots, goggles, overalls, aprons, while handling the chemicals.

- Always have a second person to assist, while handling the chemicals.
- Read all labels prior to handling or moving chemicals.
- \* Label chemicals clearly with permanent stickers.
- Segregate waste as hazardous and non-hazardous waste.
- Always dilute acids at a ratio of approximately 1:10 prior to neutralization.

Don'ts

- Don't mix unknown chemicals together and dispose.
- \* Don't store/ keep chemicals on floor.
- \* Don't use the chemicals from unlabeled containers.
- Don't eat, drink, gum chewing, during the disposal process.
- Don't sweep spilled chemicals with broom.
- \* Don't dump cloth soaked in spilled chemicals in waste bin.
- Don't use mobile phone while handling disposals.

Approved Principal 11

PHINCIPAL The Oxford College of Engineering Bommanaballi, Hosur Road Bengaluru-560 063

unath THE NJUNATHA Dept drBitteginology The Oxford College of Engineering Bengaluru-560 C68.

Principal

PRINCIPAL The Oxford College of Englisher Bommanahalli, Hosuz Ress Bengaluru-560 068