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MATERIAL SAFETY DATA SHEET

Version :01

PRODUCT NAME: THIOUREA

CAS Number: 62-56-6

1. IDENTIFICATION:		
Product Code	90576, 90260, 93322	
Company Name	ADVENT CHEMBIO PRIVATE LIMITED	
Address	W-279, MIDC, TTC INDUSTRIAL AREA, NAVI MUMBAI - 400 701.	THANE-BELAPUR ROAD, RABALE,
E-mail	sales@adventchembio.com	
WEBSITE	www.adventchembio.com	
Company Phone Number	022-27690837	
2. HAZARDS IDENTIFICATI		

Hazard classification

Hazard classification		
Health hazards		
Acute toxicity, Oral	:	Category 4
Carcinogenicity	:	Category 2
Reproductive toxicity	:	Category 2
Long-term (chronic) aquatic hazard	:	Category 2
Labels elements	:	
Hazard symbol	:	
Signal word	:	Warning
Hazard statement		Harmful if swallowed.
	:	Suspected of causing cancer.
		Suspected of damaging fertility. Suspected of damaging the unborn child. Toxic to aquatic life with long lasting effects.
Precautionary statement		
Prevention	:	Obtain special instructions before use.
		Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety
		precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection.
		Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
		Keep container tightly closed. Ground/ bond container and receiving equipment.
		Use explosion-proof electrical/ventilating/lighting/equipment.
Decrease		Use only non-sparking tools. Take precautionary measures against static discharge. IF exposed or concerned: Get medical advice/ attention.
Response	•	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
		IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if



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Ingredient	CAS Number	Percent	Hazardous
3. COMPOSITION/ INFORM	ATION ON INGRADIENTS:		
Other hazards which do not result in GHS classification	: This substance/mixture co	•	ered to be either persistent, very bioaccumulative (vPvB) at
Disposal	: Dispose of contents/conta	iner to an appropriate treat	ment and disposal facility in oduct characteristics at time of
Storage	IF SWALLOWED: Immediatel Store in a dry & well-ventila	to fresh air and keep comfortab y call a POISON CENTER or docto	or/physician. Iy closed. Containers which are

Thiourea	62-56-6	NLT 98.0%	Yes
4. FIRST AID MEASURES:			
General information	: Get medical advice/att attendance.	tention if you feel unwell. Show this	safety data sheet to the doctor in
Ingestion	: vomiting. If vomiting of lungs.	poison control center immediately. occurs, keep head low so that stom l a physician or poison control cente	ach content doesn't get into the
Inhalation		ration. If breathing is difficult, give ox	, 51,
Skin contact		n plenty of water for at least 15 minu	tes. If easy to do, remove contact
Eye contact	Immediately flush with Ienses. Get medical att	n plenty of water for at least 15 minu tention.	tes. If easy to do, remove contact
Most important symptoms/effects, acute and delayed	The most important kr 2.)	nown symptoms and effects are desc	ribed in the labelling (see section
Indication of immediate medical attention and special treatment needed	: No data available.		

5. FIRE FIGHTING MEASURES:

General information : No data available.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	:	Water spray, foam, dry powder or carbon dioxide.
Unsuitable extinguishing media	:	Avoid water in straight hose stream; will scatter and spread fire.
Specific hazards arising	:	Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance



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from the chemical		to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Vapor from the solvent may accumulate in container headspace resulting in flammability hazard. Heat may cause the containers to explode.					
Special protective equipmen	t an	-		•			
Special firefighting		lise water spray to ke	en fire-exposed contai	ners cool. Water may b	e ineffective in fightin		
procedures	:		•	Move containers from f	-		
Special protective equipment for fire-fighters	:	Firefighters must use s	Firefighters must use standard protective equipment including flame retardant coat, helmet vith face shield, gloves, rubber boots, and in enclosed spaces, SCBA.				
6. ACCIDENTAL RELEASE M	EAS	URES:					
Personal precautions, protective equipment and emergency procedures	:	Avoid breathing mists them. Do not touch of	or vapors. Keep upv damaged containers o	, flares, sparks or flam vind. Ventilate closed or spilled material unle	spaces before enterin		
Methods and material for containment and cleaning		_	sources if safe to	nnel away. do so. Use only no narges. Stop leak if pos			
up	:	Absorb spill with verm waste. Clean surface the	iculite or other inert n horoughly to remove r	naterial, then place in a esidual contamination.	container for chemica		
Notification Procedures	:	Prevent entry into wa	bill for later recovery and disposal. revent entry into waterways, sewer, basements or confined areas. Inform authorities if rge amounts are involved.				
Environmental precautions	:		Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do o. Avoid discharge into drains, water courses or onto the ground.				
7. HANDLING AND STORAG	iE:						
Precautions for safe handling	:	store or open near an from direct sunlight. T container and electrical/ventilating/li	open flame, sources o Take precautionary me receiving ghting/equipment. Us	ve been read and under of heat or sources of ig asures against static di equipment. Use se only non-sparking f	nition. Protect materia scharges. Ground/bon explosion-proc		
			ection. Avoid contact	with eyes, skin, and clation. Wash hands thoro	•		
Conditions for safe storage,							
including any incompatibilities	:	Keep away from food, well-ventilated place.	drink and animal feedi	ng stuffs. Keep containe	er tightly closed in a dry		
8. EXPOSURE CONTROLS PI	ERS	ONAL PROTECTION:					
Control parameters		Ingredients with work	place control paramet	ers :-			
		Application Area	Routes of exposure	Health effect	Value		
Derived No Effect Level (DNEL)	:	Worker DNEL, long term	dermal	Long-term systemic effects	1 mg/m3		
		Worker DNEL, long	inhalation	Long-term systemic			



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Molecular Weight : 76.12 g/mol

: 1.405 g/cm3 at 20°C

Specific Gravity

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			-			
		Consumer DNEL,	dermal	Long-term systemic		
		long term		effects		
		Consumer DNEL,	inhalation	Long-term systemic	1 mg/m3	
		long term		effects		
		Consumer DNEL,	oral	Long-term systemic		
		long term		effects		
		Compartment		Value		
		Fresh water		0,01 mg/l		
Predicted No Effect		Fresh water sedimer	nt	0,072 mg/kg		
Concentration (PNEC)	:	Sea water		0,001 mg/l		
		Sea sediment		0,007 mg/kg		
		Sewage treatment p	lant	0,38 mg/l	_	
		Soil		2,725 mg/kg		
Appropriate engineering						
controls	:	No data available				
Individual protection meas				air changes per hour) shou	ld be used. Ventilation	
General information	:	rates should be matched to conditions. If applicable, use process enclosures, local exhaus ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate wor				
		area. Use explosion-p		-		
Eye/face protection		Wear safety glasses with side shields (or goggles).				
Hand protection	:	Chemical resistant gloves.				
Other	:	Wear suitable protect	ive clothing.			
Respiratory protection	:	Respirator with organ	ic vapor cartridge.	table respirator. Chemical e measures, such as wash	ing after handling the	
Hygiene measures	:	material and before	eating, drinking, a to remove contam	nd/or smoking. Routinely w ninants. Provide eyewash sta	vash work clothing and	
9. PHYSICAL AND CHEMI	CAL PRO	OPERTIES:				
Appearance	:	White crystals or cryst	talline powder.			
Odor	:	Odorless				
Solubility	:	137 g/l at 20 °C Miscik	ole in water.			
Formula	:	CH ₄ N ₂ S [NH ₂ CSNH ₂]				



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рН	:	5,0 - 7 at 50 g/l at 20 °C
% Volatiles by volume @ 21C (70F)	:	No data available.
Boiling Point	:	No data available.
Melting Point	:	174.0 - 177.0°C
Flash Point	:	No data available.
Vapor Density (Air=1)	:	No data available.
Vapor Pressure (mm Hg)	:	No data available.
Evaporation Rate (BuAc=1)	:	No data available.

10. STABILITY AND REACTIVITY:

Reactivity	:	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Chemical stability	:	Material is stable under ambient conditions.
Possibility of hazardous reactions	:	Risk of explosion with: chlorates Violent reactions possible with: acryl aldehyde Exothermic reaction with: Acrolein Strong oxidizing agents Strong acids and strong bases hydrogen peroxide with Nitric acid.
Conditions to avoid	:	No data available.
Incompatible materials	:	No data available.
Hazardous decomposition products	:	In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:

Information on likely routes of exposure			
Ingestion	: No data available.		
Inhalation	: No data available.		
Skin contact	: No data available.		
Eye contact	: No data available.		
Information on toxicological effects			
Acute toxicity (list all possible routes of exposure)			
Oral Product	: LD 50 Rat - female - 2.000 - 2.500 mg/kg.		
Dermal Product	: LD 50 Rabbit - male and female - > 2.800 mg/kg.		
Inhalation Product	EC50 Rat - male and female - 4 h - > 195 mg/l - dust/mist.		



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Product No data available. Skin corrosion/irritation No data available. Product No data available. Serious eye damage/eye No data available. Respiratory or skin No ta skin sensitizer. Carcinogenicity Product Suspected of causing cancer. IARC Monographs on the No carcinogenic components identified. Evaluation of Carcinogenic No carcinogenic components identified. Risks to Humans No carcinogenic components identified. US. OSHA Specifically No carcinogenic components identified. Regulated Substances (29) No carcinogenic components identified. CR 1910.101.1050 No carcinogenic components identified. Germ cell mutagenicity No data available. In vitro Product No data available. Reproductive toxicity Suspected of damaging the unborn child. Suspected of damaging fertility. Product Specific target organ toxicity - single exposure No data available. Specific target organ No data available. Exposure Product No data available. Specific target organ No data available. Specific target organ No data available. <			
Product No data available. Serious eye damage/eye No data available. Kespiratory or skin Not a skin sensitizer. Sensitization Product Suspected of causing cancer. IARC Monographs on the Evaluation of Carcinogenic Evaluation of Carcinogenic No carcinogenic components identified. Risks to Humans US. National Toxicology Program (NTP) Report on No carcinogenic components identified. Carcinogens No carcinogenic components identified. CFR 1910.1001-1050 Suspected of damaging the unborn child. Suspected of damaging fertility. Product Suspected of damaging the unborn child. Suspected of damaging fertility. Specific target organ No data available. toxicity - repeated No data available.	Repeated dose toxicity Product	:	No data available.
Invitation ProductNo data available.Respiratory or skinsensitization ProductCarcinogenicity ProductSuspected of causing cancer.IARC Monographs on theNo carcinogenic components identified.Risks to HumansNo carcinogenic components identified.US. National ToxicologyNo carcinogenic components identified.Program (NTP) Report on:No carcinogenic components identified.CarcinogensUS. OSHA SpecificallyRegulated Substances (29):No carcinogenic components identified.CFR 1910.1001-1050Germ cell mutagenicity:In vitro Product:No data available.Reproductive toxicity Product:Suspected of damaging the unborn child. Suspected of damaging fertility.Specific target organ toxicity - repeated:No data available.Product:No data available.Specific target organ toxicity - repeated:No data available.Product:No data available.Specific target organ 	Skin corrosion/irritation Product	:	No data available.
sensitization Product in Not a skin sensitizer. Carcinogenicity Product is Suspected of causing cancer. IARC Monographs on the Evaluation of Carcinogenic Evaluation of Carcinogenic in No carcinogenic components identified. Risk to Humans No carcinogenic components identified. Suspected of causing cancer. No carcinogenic components identified. Carcinogens in No carcinogenic components identified. Carcinogens in No carcinogenic components identified. CAR 1910.1001-1050 in No carcinogenic components identified. Germ cell mutagenicity in vitro Product In vitro Product in No data available. Reproductive toxicity is Suspected of damaging the unborn child. Suspected of damaging fertility. Specific target organ in No data available. Product in No data available. Aspiration	Serious eye damage/eye irritation Product	:	No data available.
IARC Monographs on the Suspected of causing cancer. Evaluation of Carcinogenic No carcinogenic components identified. Risks to Humans No carcinogenic components identified. US. National Toxicology Program (NTP) Report on No carcinogenic components identified. Carcinogens US. OSHA Specifically Regulated Substances (29 No carcinogenic components identified. CFR 1910.1001-1050 Germ cell mutagenicity No carcinogenic components identified. No carcinogenic components identified. In vitro Product : No data available. Suspected of damaging the unborn child. Suspected of damaging fertility. Product : No data available. Suspected of damaging the unborn child. Suspected of damaging fertility. Specific target organ : No data available. Specific target organ toxicity - single exposure : No data available. Specific target organ toxicity - repeated : No data available. Specific target organ toxicity - repeated : No data available. Specific target organ toxicity - repeated : No data available. Specific target organ toxicity - repeated : No data available.	Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Evaluation of Carcinogenic:No carcinogenic components identified.Risks to Humans:No carcinogenic components identified.US. National Toxicology:No carcinogenic components identified.Program (NTP) Report on:No carcinogenic components identified.Carcinogens:No carcinogenic components identified.US. OSHA Specifically:No carcinogenic components identified.Regulated Substances (29:No carcinogenic components identified.CFR 1910.1001-1050:No data available.Germ cell mutagenicity:No data available.In vitro Product:Suspected of damaging the unborn child. Suspected of damaging fertility.Specific target organ:No data available.Froduct:No data available.Product:No data available.Product:No data available.Product:No data available.Product:No data available.Product:No data available.Product:No data available.Cher effects:No data available.	Carcinogenicity Product	:	Suspected of causing cancer.
Program (NTP) Report on Carcinogens:No carcinogenic components identified.CarcinogensUS. OSHA Specifically Regulated Substances (29 Germ cell mutagenicity:No carcinogenic components identified.In vitro Product::No data available.In vitro Product::No data available.Reproductive toxicity Product::Suspected of damaging the unborn child. Suspected of damaging fertility.Specific target organ toxicity - single exposure Product:No data available.Specific target organ toxicity - repeated exposure Product:No data available.Specific target organ toxicity - repeated 	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans	:	No carcinogenic components identified.
Regulated Substances (29 : No carcinogenic components identified. CFR 1910.1001-1050 : No data available. Germ cell mutagenicity : No data available. In vitro Product : Suspected of damaging the unborn child. Suspected of damaging fertility. Specific target organ : No data available. Froduct : No data available. Specific target organ : No data available. Froduct : No data available. Specific target organ : No data available. Specific target organ : No data available. Specific target organ : No data available. exposure Product : No data available. Aspiration hazard Product : No data available. Other effects : No data available.	Program (NTP) Report on Carcinogens	:	No carcinogenic components identified.
In vitro Product:No data available.Reproductive toxicity:Suspected of damaging the unborn child. Suspected of damaging fertility.Product:Suspected of damaging the unborn child. Suspected of damaging fertility.Specific target organ:No data available.toxicity - single exposure:No data available.Product:No data available.Specific target organ:No data available.toxicity - repeated:No data available.exposure Product:No data available.Other effects:No data available.	Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Product Suspected of damaging the unborn child. Suspected of damaging fertility. Specific target organ No data available. Product Product Specific target organ No data available. toxicity - repeated No data available. exposure Product No data available. Aspiration hazard Product No data available. Other effects No data available.	In vitro Product	:	No data available.
toxicity - single exposure : No data available. Product Specific target organ toxicity - repeated : No data available. exposure Product . Aspiration hazard Product : No data available. Other effects : No data available.	Reproductive toxicity Product	:	Suspected of damaging the unborn child. Suspected of damaging fertility.
toxicity - repeated : No data available. exposure Product . Aspiration hazard Product : No data available. Other effects : No data available.	Specific target organ toxicity - single exposure Product	:	No data available.
Aspiration hazard Product : No data available. Other effects : No data available.	Specific target organ toxicity - repeated exposure Product	:	No data available.
: No data avallable.	Aspiration hazard Product	:	No data available.
12. ECOLOGICAL INFORMATION:	Other effects	:	No data available.
	12. ECOLOGICAL INFORMAT	ΓΙΟΝ	:

Ecotoxicity

Acute hazards to the aquatic environment

Fish Product	:	LC50 - Pimephales promelas (fathead minnow) - > 600 mg/l.
Aquatic invertebrates Product Chronic hazards to the aquat	: ic e	EC50 - Daphnia magna (Water flea) - 5,6 - 18,0 mg/l. nvironment
Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.



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Toxicity to Aquatic Plants Product: Persistence and degradabilit	: t y	No data available.					
Biodegradation Product	:	0 % - Not r	0 % - Not readily biodegradable.				
BOD/COD ratio Product	:	No data available.					
Bioaccumulative potential							
Bioconcentration factor (BCF) Product Partition coefficient n-	:	No data av	No data available on bioaccumulation.				
octanol / water (log Kow) Product	:	No data available.					
Mobility in soil	:	No data available.					
Other adverse effects	:	No data available.					
13. DISPOSAL CONSIDERATION:							
Disposal instructions	:	: Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.					
Contaminated packaging	:	Since emptied containers retain product residue, follow label warnings even after container is emptied.					
14. TRANSPORT INFORMATION:							
	U	N No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant	
DOT	UN 3077		Thiourea	9	III	Yes	
IMDG	UN 3077		Thiourea	9	Ш	Yes	
ΙΑΤΑ	UN 3077		Thiourea	9	Ш	Yes	
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15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Safety, health and environmental regulations/legislation specific for the substance or mixture No Data Available.



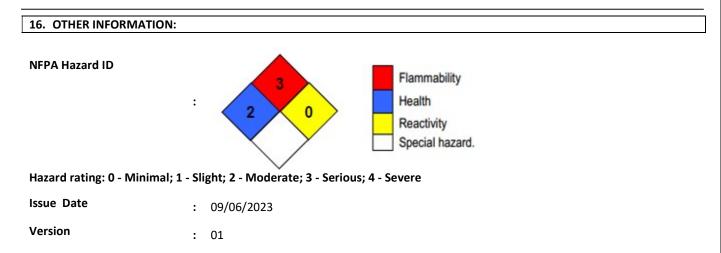
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