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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification

1.1 Product identifiers

Product Name : **3,5-Dichloro-6-hydroxyaniline**

Cat No.: **H64801**

CAS No. : 527-62-8

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended uses : Laboratory chemicals

Uses advised against: Food, drug, pesticide or biocidal product use.

1.3 Details of the supplier of the safety data sheet

Company : Krishna Solvechem Ltd.
B/503, Shayog, S. V. Road,
Kandivali (West), Mumbai – 400067. India.

Telephone : +91-22-6123 0222

Email : exports@kscl.co.in

1.4 Emergency telephone number

Emergency Phone : +91-8657447330

SECTION 2: Hazards identification

2.1 Classification

CLP Classification – Regulation (EC) No 1272/2008

Physical hazards : based on available data, the classification criteria are not met

Health hazards:

Acute oral toxicity	(Category 4) H302
Acute dermal toxicity	(Category 4) H312
Acute inhalation toxicity – Dusts and Mists	(Category 4) H332
Specific target organ toxicity (single exposure)	(Category 3) H335
Skin corrosion/Irritation	(Category 2) H315
Serious eye damage/Eye irritation	(Category 2) H319

Environmental hazards : Based on available data, the classification criteria are not met

2.2 Label elements

Pictogram :

Signal word Warning

Hazard statement (s) H315 – Causes skin irritation

	H319 – Causes serious eye irritation H335 – May cause respiratory irritation H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled
Precautionary statement (s)	
P301 + P330 + P331	IF SWALLOWED : Rinse mouth. Do NOT induce vomiting
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352	IF ON SKIN : Wash with plenty of soap and water
P304 + P340	IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing
P337 + P313	If eye irritation persists : Get medical advice/attention
P280	Wear protective gloves/protective clothing/eye protection/ face protection
P332 + P313	If skin irritation occurs : Get medical advice/attention

2.3 Other hazards No information available

SECTION 3: Composition / information on ingredients

3.1

Component	CAS-No	Weight %
2-Amino-4,6-dichlorophenol	527-62-8	<=100

SECTION 4: First aid measures

4.1 Description of first aid measures

General Advice:	If symptoms persist, call a physician.
If inhalation :	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
In case of skin contact :	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
In case of eye contact :	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion :	Clean mouth with water and drink afterwards plenty of water.

	Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination
4.2	**Most important symptoms and effects :**	None reasonably foreseeable
4.3	**Notes to Physician :**	Treat symptomatically

SECTION 5: Firefighting effects

5.1	**Extinguishing media**	
	Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.
	Unsuitable Extinguishing Media	No information available
5.2	**Flash Point :**	No information available
	Method :	No information available
	Autoignition Temperature:	No information available
	Explosion Limits:	
	Upper	No data available
	Lower	No data available
	Sensitivity to Mechanical Impact	No information available
	Sensitivity to Static Discharge	No information available
	Specific Hazards Arising from the Chemical :	Thermal decomposition can lead to release of irritating gases and vapors.
	Hazardous Combustion Products :	Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen chloride. Nitrogen oxides.
5.4	**Protective Equipment and Precautions for Firefighters:**	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures

6.1	**Personal precautions, protective equipment and emergency procedures**	
	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.	

6.2 Environmental precautions

Should not be released into the environment. See section 12 for additional Ecological Information.

6.3 Methods and materials for containment and cleaning up

Keep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Technical rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Class 11

7.3 Specific end use(s)

Use in laboratories

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Exposure limits

This product does not contain any hazardous materials with occupational exposurelimits established by the region specific regulatory bodies.

Biological limit values

This product does not contain any hazardous materials with occupational exposurelimits established by the region specific regulatory bodies.

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

8.2	Exposure controls

Personal protective equipment -

Eye / Face protection

Goggles European StandardEN166.

Skin protection and body protection

Long sleeved clothing

Hand Protection

Protective gloves

Glove material : Natural rubber, Nitrile rubber, Neoprene, PVC

Breakthrough time : See manufacturers recommendations

EU Standard : EN 374

Glove comments : minimum requirement

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be usedand maintained properly

Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Recommended Filter type: Particulates filter conforming to EN 143

Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended half mask:- Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls

No information available

SECTION 9: Physical and chemical properties

9.1	Information on basic physical and chemical properties	
	a) Appearance	Form: solid, yellow - brown
	b) Odour	No information available
	c) Odour Threshold	No data available
	d) pH	No information available
	e) Melting point / freezing point	89 - 94 °C / 192.2 - 201.2 °F
	f) Initial boiling point and	No information available

boiling range	
g) Flash point	No information available
h) Evaporation rate	Not applicable - solid
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	No data available No data available
k) Vapour pressure	No data available
l) Vapour density	Not applicable
m) Specific Gravity	No information available
n) Solubility	No information available
o) Partition coefficient: n octanol/water	No data available
p) Auto-ignition temperature	No information available
q) Decomposition temperature	No data available
r) Viscosity	No information available
s) Molecular formula	C6 H5 Cl2'N O
t) Molecular Weight	178.01

SECTION 10: Stability and Reactivity

10.1	**Reactive Hazard :**	None known, based on information available
10.2	**Chemical stability :**	Stable under normal conditions.
10.3	**Possibility of hazardous reactions :**	None under normal processing.
10.4	**Conditions to avoid :**	Excess heat. Incompatible products.
10.5	**Incompatible materials:**	None known
10.6	**Hazardous decomposition products :**	Carbon monoxide (CO), Carbon dioxide (CO2), Hydrogen chloride, Nitrogen oxides
10.7	**Hazardous Polymerization**	No information avaialble

SECTION 11: Toxicological information

11.1
Information on toxicological effects
Acute toxicity:
Product Information

Oral	Category 4
Dermal	Category 4
Inhalation	Category 4

Component Information

Toxicologically Synergistic Products	No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/Irritation :	Category 2
Serious eye damage/irritation:	Category 2
Carcinogenicity :	No data available There are no known carcinogenic chemicals in this product
Mutagenic Effects:	No information available.
Reproductive Effects:	No information available.
Developmental Effects :	No information available.
Teratogenicity:	No information available.
STOT - single exposure :	Respiratory system
STOT - repeated exposure:	None known
Aspiration hazard :	Not applicable solid
Symptoms / effects,both acute and delayed:	No information available
Endocrine Disruptor Information :	Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

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SECTION 12: Ecological information

12.1 Ecotoxicity:	contains no substances known to be hazardous to the environment or that are degradable in waste water treatment plants.
12.2 Persistence and degradability:	No information available
Bioaccumulation/ Accumulation	No information available
12.3 Mobility:	No information available
12.4 Results of PBT and vPvB Assessment	No data available for assessment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from Residues/unused products :

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging :

Dispose of this container to hazardous or special waste collection point.

European Waste Catalogue (EWC) :

According to the European Waste Catalog, Waste Codes are not product specific, but application specific**.**

Other Information :

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

SECTION 14: Transport information

14.1 UN number :

ADR: UN2811 IMDG: UN2811

IATA: UN2811

14.2 UN proper shipping name			
ADR :	Toxic solid, organic, n.o.s.		
IMDG :	Toxic solid, organic, n.o.s.		
IATA :	TOXIC SOLID, ORGANIC, N.O.S*		
14.3 Transport hazard class(es)	ADR: 6.1	IMDG: 6.1	IATA: 6.1
14.4 Packaging group:	ADR: III	IMDG: III	IATA: III
14.5 Environmental hazards	No hazards identified		
14.6 Maritime transport in bilk According to IMO instruments	Not applicable, packaged goods		

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or Mixture

International inventories

X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), China (IECSC), Japan (ENCS), Australia(AICS), Korea (ECL).

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
2-Amino-4,6-dichlorophenol	208-421-3	-		-	-	-	-	X	-	-	-

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

National Regulations

WGK Classification Water endangering class = 3 (self classification)

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

15.2 Chemical safety Assessment :

Chemical Safety Assessment/Report (CSA/CSR) has not been conducted.

SECTION 16: Other information

16.1 Prepared By: Regulatory affairs
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Revision Summary: Update to CLP format
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006 COMMISION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) N0 1907/2006

16.2 Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 – Harmful if inhaled
H315 – Causes skin irritation
H319 – Causes serious eye irritation
H335 – May cause respiratory irritation

Legend

CAS - Chemical Abstracts Service
TSCA - United States Toxic Substances Control Act Section 8(b)Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japanese Existing and New Chemical substances
IECSC - Chinese Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit
TWA - Time Weighted Average
ACGIH - American Conference of Governmental Industrial Hygienists
IARC - International Agency for Research on Cancer
DNEL - Derived No Effect Level
Predicted No Effect Concentration (PNEC)
RPE - Respiratory Protective Equipment
LD50 - Lethal Dose 50%
LC50 - Lethal Concentration 50%
EC50 - Effective Concentration 50%

NOEC - No Observed Effect Concentration
POW - Partition coefficient Octanol:Water
PBT - Persistent, Bioaccumulative, Toxic
vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage ofDangerous Goods by Road
IMO/IMDG - International Maritime Organization/International MaritimeDangerous Goods Code
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International AirTransport Association
MARPOL - International Convention for the Prevention of Pollution fromShips

ATE - Acute Toxicity Estimate
VOC (volatile organic compound)

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene. Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards. First aid for chemical exposure, including the use of eye wash and safety showers.

16.3 Disclaimer:

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 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.