

# **MSDS**

## **2,4-D Amine salts**

## **MATERIAL SAFETY DATA SHEET**

### **1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION:**

Common Name	<b>2,4-D Amine Salt 58% SL</b>
Chemical Name	2, 2,4-Dichlorophenoxyacetic acid, dimethylamine salt
Intended Use	Herbicide
Pesticide Family	Phenoxy Herbicide
Manufactured By	JAI SHREE RASAYAN UDYOG LTD. M-4, Aradhana Bhawan, Commercial Complex, Azadpur, Delhi-110 033 Telephone No. : 91-11- 45750100-40 Telefax : 91- 11- 45750140
CAS NO.	25168-26-7 ,2008-39-1

### **2. COMPOSITION / INFORMATION ON INGREDIENTS.**

Chemical characterisation	:2,4-D DMA Salt 570 g/L 625 mg/kg 2115 mg/kg 4540 ppm/6H
Hazardous component	:2,4-D DMA Salt 570 g/L 625 mg/kg 2115 mg/kg 4540 ppm/6H

### **3. HAZARDS IDENTIFICATION.**

#### **EFFECTS OF OVEREXPOSURE**

#### **ACUTE (SHORT TERM EXPOSURE):**

EYE:	May cause severe irritation with corneal injury and may result in permanent impairment of vision, even blindness.
SKIN CONTACT:	Prolonged exposure may cause skin irritation.
SKIN ABSORPTION:	A single prolonged skin exposure may

result in the materials being absorbed in harmful amounts.

**INGESTION** MAY cause gastrointestinal irritation.

**INHALATION:** Single exposure to vapors is not likely to be hazardous.

**ROUTES OF ENTRY:** Skin and eye contact, skin absorption, acute inhalation and ingestion. Noxious vapors under high temperature conditions.

**EFFECTS OF OVEREXPOSURE:** May cause loss of appetite, nausea, vomiting, general tenseness and muscular weakness, and prolonged or repeated exposure may lead to liver or kidney damage or central nervous system symptoms.

**EXPOSURE LIMITS:** For 2,4-D acid TLV - TWA 10 mg/m<sup>3</sup>.  
For dimethylamine 18 mg/m<sup>3</sup>.

**IRRITANCY OF PRODUCT:**

Eyes : marked irritation and corneal injury may occur.

**SENSITIZATION OF MATERIAL:** Pre-existing skin or respiratory disorders may be aggravated by excessive exposure to this material.

**CHRONIC (LONG TERM EXPOSURE):**

Excessive exposure may cause liver, kidney, gastrointestinal and muscular effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting and abdominal cramps and/or diarrhea. Various animal cancer tests have shown no reliable positive association between 2,4-D exposure and cancer. Epidemiology studies have been both positive and negative with the majority being negative. Birth defects are unlikely. Exposures having no effect on the mother should have no effect on the fetus. Did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother. High dietary levels of 2,4-D caused toxic effects (weight and viability reduction) in rats on a reproduction test. Has been shown to be negative in some vitro ("test tube") mutagenicity tests and positive in others. Results of mutagenicity tests in animals have been inconclusive .

**GENERAL PRECAUTIONS:** Always practice good industrial hygiene; handle with care; avoid personal contact. Do not get into eyes or on skin; do not breathe mist or vapor of product. Do not swallow. Wash hands with soap and water and rinse after handling product. Shower after each shift. Wash all work clothing and completely clean all PPE (personal protective equipment) after each shift.

**4. FIRST AID MEASURES.** Have the product container or label with you when calling a Poison Control Center or doctor, or going for treatment.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.

**IF ON SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for further treatment advice.

**IF SWALLOWED:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person. Contains petroleum distillate – vomiting may cause aspiration hazard.

**PHYSICIAN: (ANTIDOTE)** Treat symptomatically and supportively

## **5. FIRE-FIGHTING MEASURES.**

FLAMMABILITY (Specify Conditions: n/a )

FLASH PT °C (method): n/a

EXTINGUISHING MEDIA : Dry chemical, CO<sub>2</sub>, foam, water spray or fog.  
Special Fire Fighting Procedures: Self contained breathing equipment. If water is used, use a soft fog to avoid spreading contamination. Use self-contained breathing apparatus and full protective

gear in confined areas of buildings. Contain water to prevent entry into water supplies.

**HAZARDOUS COMBUSTION PRODUCTS:** Avoid noxious vapours under high temperature conditions. Water based, may boil, then burn.

**UNUSUAL FIRE & EXPLOSION HAZARDS:** Prevent water used in fire fighting from entering water supplies

## **6. ACCIDENTAL RELEASE MEASURES.**

Personal precautions	Use personal protective equipment.
Methods for cleaning up	Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry. Ventilate closed space.
Environmental precautions	Prevent contamination of water.

## **7. HANDLING AND STORAGE.**

Handling precautions	Keep product in original tightly closed container ; avoid exposure by inhalation ; do not get on skin, eyes or clothing ; do not eat, drink or smoke when handling; wash hands before eating, drinking or smoking.
Storage	Store in locked, well-ventilated storeroom, away from children and unauthorised personnel, and food and animal feed.

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

Ventilation ventilation.	Provide local exhaust or general dilution
Respiratory protection	Wear a suitable mask.
Hand protection	Wear rubber or plastic gloves.
Eye protection	Wear splash-proof or dust-resistant safety goggles.

Skin and body protection

Wear overalls and closed footwear.

## 9. PHYSICAL AND CHEMICAL PROPERTIES.

<b>Appearance &amp; Odour</b>	:	Reddish brown
<b>Specific Gravity</b>	:	1.170 @ 20° C
<b>Boiling Pt°C</b>	:	> 100 °C
<b>Vapour Density (air=1)</b>	:	0.021
<b>Density (g/mL)</b>	:	<b>1.245 at 25°C</b>
<b>Freezing Pt°C</b>	:	0
<b>Vapour Pressure (mm):</b>	:	20.7
<b>pH:</b>	:	7.5 - 9
<b>Solubility in Water:</b>	:	<b>Soluble</b>

## 10. STABILITY AND REACTIVITY.

Stability (Conditions to avoid) : Stable (excessive heat).

Reactivity & Under What Condition : n/e

Incompatibility (Materials to avoid) : Strong oxidizers, acids.

Hazardous Decomposition Products : Ammonia, oxides of nitrogen, chlorine  
Containing compounds and other unknown hazardous materials may be formed in a fire situation. Incomplete combustion may lead to formation of carbon monoxide and/or other asphyxiants

## 11. TOXICOLOGICAL INFORMATION.

ORAL LD50(Rat)	:	699mg/kg
DERMAL LD50 (Rabbit)	:	>2000mg/kg
INHALATION LC50(Rat)(4hrs)	:	1.79mg/kg

EFFECTS TO EYES	:The concentrate will cause irritation
EFFECTS TO SKIN	: Prolonged contacts with the concentrate with skin will results in absorption of some 2,4-D which can be harmful.
SKIN SENSITISATION GUINEA PIGS	non skin sensitiser , may cause irritation under prolonged contacts

## 12. ECOLOGICAL INFORMATION.

LC50 (96 h) rainbow trout	100 □g/l
Acute LD50 oral mallard ducks	> 10 00 mg/kg
Bee toxicity	LD50 (24 h, oral) 104□g /bee
Chicken LD50 Oral toxicity	> 2000 mg/kg
Aquatic invertebrates	<i>Daphnia magna</i> LC50 (48 h) 184 □g/l .

## 13. DISPOSAL CONSIDERATIONS.

Pesticide disposal facility.	Dispose of waste at an approved disposal facility.
Container disposal	Completely empty container into application equipment. This dispose of empty container in a sanitary landfill,or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## 14. TRANSPORT INFORMATION.

Not regulated for ground or rail transport .Regulated for Marine Transport only.	
UN No.	: UN 3082
Class	: 9
Packing group	: III.
Proper shipping name	: If 115L or larger RQ ENVIRONMENTALLY HAZARDOUS SUBSTANCE
Environmental risk	: <b>IMDG</b> Marine pollutant

## 15. REGULATORY INFORMATION.

Hazard symbol	:	The harmful symbol (Xn) The dangerous for the environment symbol (N)
Risk phrases	:	R20/21/22- Harmful if swallowed -.
Safety phrases	:	S2/13 - Keep out of reach of children, Away from food, drink and animal feeding stuffs. .

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