Nicotine Sulphate 40%
Botanical Pesticide

NICOTINE SULPHATE is an insecticide of plant origin. It is very effective against a wide range of insect-pests affecting crops of economic importance as well as on ectoparasites affecting livestock.

Chemical Composition:
NICOTINE SULPHATE 40% contains Nicotine Alkaloid 400gm/1000gm i.e. 40%(w/w) Vegetable Oils, Tar, etc. 20gm /1000gm i.e. 2% (w/w) Water and other ingredients 580gm/1000 gm i.e. 58% (w/w).

Mode of Action:
NICOTINE SULPHATE acts upon the central nervous system of the insects. It has both contact as well as fumigation action.

Uses:
NICOTINE SULPHATE 40% is used to kill aphids, bugs, worms, leafhoppers and similar sucking insects which attack and destroy fruit, vegetables, crops and even flowers. It is also effective against Lice, Mites and Ticks which are a menace to livestock.

Chemical Formula:
\[(\text{C}_{10}\text{H}_{14}\text{N}_2)\text{H}_2\text{SO}_4\]

Advantages:

While synthetic pesticides leave toxic remnants on fruits and vegetables, Nicotine Sulphate being highly bio-degradable does not leave any objectionable residue on market produce. Hence, it is an extremely safe pesticide.

NICOTINE SULPHATE being an insecticide of plant origin does not pollute the environment like other chemical insecticides.

No immunity has ever been developed by any pest against this product during its hundred years of continuous use all over the world.
BIO-EFFICACY OF NICOTINE SULPHATE

Source: Chari et al., 1992
Certificate of Analysis

NICOTINE SULPHATE 40%

Batch No. : 032  
Date of analysis : 30/07/2014  
Mfg. Date : 30/07/2014

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Characteristic</th>
<th>Requirement</th>
<th>Results Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appearance</td>
<td>Reddish brown liquid.</td>
<td>Complies</td>
</tr>
<tr>
<td>2</td>
<td>Nicotine content</td>
<td>41.80%</td>
<td>Complies</td>
</tr>
<tr>
<td>3</td>
<td>Sp. Gravity</td>
<td>1.16</td>
<td>Complies</td>
</tr>
<tr>
<td>4</td>
<td>pH</td>
<td>3.85</td>
<td>Complies</td>
</tr>
<tr>
<td>5</td>
<td>Sediments</td>
<td>Not observed</td>
<td>Complies</td>
</tr>
<tr>
<td>6</td>
<td>Foreign Odour</td>
<td>Not observed</td>
<td>Complies</td>
</tr>
</tbody>
</table>

Remark: The above product complies as per specification.

For Nico Orgo Manures                     For Nico Orgo Manures
Quality Control Dept.                   Partner
Chemist
MATERIAL SAFETY DATA SHEET

NICOTINE SULPHATE 40 %

Section 1. -------------------Chemical Identification -------------------

Name : NICOTINE SULPHATE 40 %
Formula : (C10H14N2)2.H2SO4.
Solubility : Water - Soluble
Ether - Soluble
Ethanol - Soluble
Boiling point 247 °C

Section 2. -------------------Physical Identification -------------------

Appearance : Reddish brown liquid with pungent odour.
U.N.Number : 1658
IMDG Number : 6203
EMS Number : 6.1 – 02
MFAG Number : 800

Section 3. -------------------Hazards Identification -------------------

Fire : Non inflammable.
Other Hazards: Hazardous polymerisation will not occur.
Concentration of active ingredient (a.i.) 40 % (min)
Avoid ingestion. Toxic.
Avoid eye & skin contact.

Section 4. -------------------Toxicity Data -------------------
Mildly irritant to skin. Irritant to mucous membrane.
Acute Effects: General discomfort, giddiness & vomiting followed by headache.

Toxic by ingestion.

Section 5. ------------------ Stability ---------------------------------------------

Stable.

Conditions to avoid: Heat.

Incapabilities: Oxidizing Agents.

Section 6. ---------------- Preventive steps ---------------------------------

Do not handle with bare hands. Should not come in contact with eyes. Advisable to wear gloves & mask during handling. Use full protective clothing.

Keep away from the reach of children.

Section 7. ----------- First Aid Measures ----------------------------

Wash the affected parts with water for more than 10 minutes.

If ingested by mistake, take the person to open air & induce vomiting.

Purging is advisable.

Universal antidotes may be administered if discomfort persists.

Call physician for further treatment.

Section 8. -------------- Storage & Handling -------------------------------

Store in a cool, dry, & covered place.

Spillages should be cleaned/washed immediately.

Section 9. -------------- Other Information -------------------------------

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Nicosulf Industries & Exports Pvt.Ltd. assumes no legal responsibility for use or reliance on these data.