1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sumicron Spray (PFOA Free)
Company Name: SUMICO LUBRICANT CO., LTD.
Address: Shimbashi Sumitomo Bldg., 11-3, Shimbashi 5-chome Minato-ku, Tokyo 105-0004, Japan
Phone Number: +81-3-5401-8513
Fax Number: +81-3-5401-0471
Mail Address: tech_sumico@ni.smm.co.jp

2 HAZARDS IDENTIFICATION

Hazards Category
- Aerosols: Category 1
- Flammable Liquids: Category 2
- Skin Corrosion/Irritation: Category 2
- Specific Target Organ Systemic Toxicity(Single Exposure): Category 2
- Specific Target Organ Systemic Toxicity(Single Exposure): Category 3
- Hazardous to The Aquatic Environment(Acute): Category 1
- Hazardous to The Aquatic Environment(Chronic): Category 3

The one without the description cannot be classified.

Allocation of Label Elements

Pictogram
- Flame
- Exclamation mark
- Health Hazard
- Environment

Signal Word
- Danger

Hazard Statement
- Extremely flammable aerosol
- Pressurized container: may burst if heated
- Highly flammable liquid and vapour
- Cause skin irritation
- May cause damage to organs
- May cause respiratory irritation; or May cause drowsiness or dizziness
- Very toxic to aquatic life
- Harmful to aquatic life with long lasting effects

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component name</th>
<th>CAS number</th>
<th>wt%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>110-82-7</td>
<td>45~55</td>
</tr>
<tr>
<td>Cyclopentane</td>
<td>287-92-3</td>
<td>1~5</td>
</tr>
<tr>
<td>Petrolatum</td>
<td>8009-03-8</td>
<td>1~5</td>
</tr>
<tr>
<td>Ethene, 1,1,2,2-tetrafluoro-, homopolymer</td>
<td>9002-84-0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>5~10</td>
</tr>
</tbody>
</table>
4 FIRST-AID MEASURES

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a physician if you feel unwell.

Skin
Wash with plenty of soap and water.
Call a physician if you feel unwell.

Eye
Immediately flush eyes with plenty of water for at least 15 minutes.
Call a physician.

Ingestion
Rinse mouth. Do not induce vomiting.
Call a physician.

5 FIRE-FIGHTING MEASURES

Extinguishing Media
Dry chemical, carbon dioxide (CO2), and foam

Specific Fire Fighting
Must not use water to extinguish fires.
Quickly removed from the surrounding flammable.
The use of extinguishing agents specified.
Fire fighting is done from the windward.
On small fires use carbon dioxide (CO2) or dry chemical.
On large fires use dry chemical or foam.
Sealed containers that are exposed to high temperatures over the water to cool.

Protection for Fire-fighter
Wear full body protective clothing with breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions
Wear protective equipments in case of operation.

Environmental Precautions
Avoid release to the environment.

Methods for Cleaning Up
Remove potential ignition source in vicinity as soon as possible.
Prepare extinguishing agent.
Prevent leakage by enclosing with nonflammables and collect into empty container by scoop or the like.
Absorbed to non-flammable dry sand, if a large amount of spill to prevent enclosed in embankment.
If do not stop the leakage from the container, releasing carried away in a place not at risk of being open.
Spilled material is collected in a container that can be sealed, then remove to safe place.
Deposits, waste treatment is based on the local regulations.
Working from the windward, to evacuate people downwind.

7 HANDLING AND STORAGE

Handling
Use in a well ventilated area.
Keep away from heat, spark and flames.
Use spark-proof tools and explosion-proof equipment.
After handling, wash well hands and face and rinse your mouth.

Facilities storing or utilizing this material should be equipped with an eye wash facility and a safety shower.
Leakage, overflow, to prevent scattering, we do not generate steam in vain.
In the handling area and deny unnecessary entry.
Resting place shall not bring contaminated protective equipment such as gloves.
Wear protective equipments when risk of exposure occurs.
To work in an enclosed area that you work with appropriate protective equipment with a local exhaust ventilation sufficient.

Precautions
Do not breathe vapor or mist.
Handling of the outdoors, as much as possible to work from the windward.
Note is flammable at higher temperatures.
Do not handle in a fire place.
Do not handle in the place more than 40 °C.
Do not use continuously for more than 30 seconds.
Do not store near heat or open flame areas exposed to direct sunlight.
Not want to use toward food and the human body.

Handling Precautions for Safety
Avoid physical damage to containers.

Storage
Fire prohibited strictly.
Do not store in direct sunlight or where more than 40 °C.
Keep away from sources of ignition.
Store in a cool, dry, well-ventilated area away from incompatible substances.
Note that because there is a risk of corrosion and rupture the container is stored in a moisture or humid place.
Store in a tightly closed container.

Safe containers and packaging materials
None in particular.

8 EXPOSURE/PERSOAL PROTECTION
Engineering Controls
Handling equipment is used explosion-proof.
Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design.
That the equipment and shall become hot, and the source of ignition in the vicinity of the location, such as handling not been placed.
Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limit Values

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>TWA 100ppm</td>
</tr>
<tr>
<td>Cyclopentane</td>
<td>TWA 600ppm</td>
</tr>
<tr>
<td>Propane</td>
<td>TWA 1,000ppm</td>
</tr>
<tr>
<td>Butane</td>
<td>TWA 1,000ppm</td>
</tr>
</tbody>
</table>

Personal Protective Equipment
Respiratory Protection
Respirator for organic gases
Skin Protection
Solvent-resistant gloves
Eye Protection
Wear chemical worker’s goggles.
Skin and body protection
Such as long-sleeved work clothes
Hygiene measures
Do not eat, drink or smoke during work.
Replacement of the adsorbent, such as the mask is performed each time or use plans.
9 PHYSICAL AND CHEMICAL PROPERTIES
Physical State : Liquid (Base liquid)
Color : Light white
Odor : Solvent odor
pH : Not available
Boiling Point(℃) : Not available
Melting Point(℃) : Not available
Flash point(℃) : –20
Auto-ignition Temperature(℃) : Not available
Flammability or Explosive Limits
   Lower : Not available
   Upper : Not available
Vapour Pressure (KPa) : Not available
Vapour Density : Not available
Relative density(g/cm3) : 0.78
Solubility : Insoluble in water
Partition Coefficient: n-octanol/water : Not available
Decomposition Temperature(℃) : Not available

10 STABILITY AND REACTIVITY
Stability
   Stable under normal temperatures and pressures.
Reactivity
   No self-reactive
Conditions to Avoid
   Heat, flames, ignition sources and incompatibles.
   Contact with fire, and the oxidizing agent, contact with an alkali metal or alkaline earth metal
Hazardous Decomposition Products
   Carbon monoxide, carbon dioxide and other oxidized substances.

11 TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Acute toxicity (oral)</th>
<th>Acute toxicity (dermal)</th>
<th>Acute toxicity (inhalation: gas)</th>
<th>Acute toxicity (inhalation: dust)</th>
<th>Acute toxicity (inhalation: vapour)</th>
<th>Skin corrosion / irritation</th>
<th>Serious eye damage / eye irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>Not classified</td>
<td>Not classified</td>
<td>Not applicable</td>
<td>Classification not possible</td>
<td>Category 2</td>
<td>Category 2</td>
<td></td>
</tr>
<tr>
<td>Cyclopentane</td>
<td>Not classified</td>
<td>Classification not possible</td>
<td>Not applicable</td>
<td>Category 5</td>
<td>Classification not possible</td>
<td>Category 2</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Petrolatum</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td></td>
</tr>
<tr>
<td>Ethene, 1,1,2,2-tetrafluoro-, homopolymer</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td></td>
</tr>
<tr>
<td>Propane</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not classified</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Classification not possible</td>
<td></td>
</tr>
<tr>
<td>Chemical name</td>
<td>Respiratory/skin sensitizer</td>
<td>Germ cell mutagenicity</td>
<td>Carcinogenicity</td>
<td>Toxic to reproduction</td>
<td>Specific target organs/systemic toxicity following single exposure</td>
<td>Specific target organs/systemic toxicity following repeated exposure</td>
<td>Aspiration hazard</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------</td>
<td>-----------------------</td>
<td>-----------------</td>
<td>----------------------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>Classification not possible; Skin sensitizer: Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Not classified</td>
<td>Category 2 (cardiovascular system) Category 3 (respiratory tract irritation, narcotic effects)</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Cyclopentane</td>
<td>Classification not possible; Skin sensitizer: Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Category 3 (narcotic effects, respiratory tract irritation)</td>
<td>Not classified</td>
<td>Category 1</td>
</tr>
<tr>
<td>Petrolatum</td>
<td>Classification not possible; Skin sensitizer: Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
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<tr>
<td>Ethene, 1,1,2,2-tetrafluoro-, homopolymer</td>
<td>Classification not possible; Skin sensitizer: Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Propane</td>
<td>Classification not possible; Skin sensitizer: Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Category 3 (narcotic effects)</td>
<td>Classification not possible</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Butane</td>
<td>Classification not possible; Skin sensitizer: Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Classification not possible</td>
<td>Category 3 (narcotic effects)</td>
<td>Classification not possible</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

12 ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Hazardous to the aquatic environment (Acute)</th>
<th>Hazardous to the aquatic environment (Chronic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>Category 1</td>
<td>Category 3</td>
</tr>
<tr>
<td>Cyclopentane</td>
<td>Category 3</td>
<td>Category 3</td>
</tr>
</tbody>
</table>
13 DISPOSAL CONSIDERATIONS
Dispose of contents/container in accordance with local/regional/national/international regulations.

14 TRANSPORT INFORMATION
UN Class
- Aerosols, flammable, Class 2.1
UN No.
- UN1950
Packing Group
- Not regulated.

15 REGULATORY INFORMATION
Follow all regulations in your country.

16 OTHER INFORMATION
References
- JIS Z 7253
- GHS data-base (NITE)

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