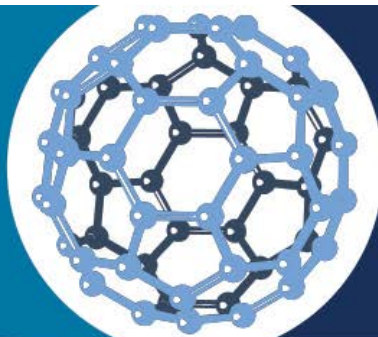


Superskinsystems, Inc.
100 Petty Road, Suite C
Lawrenceville, GA 30043
Phone: 404-216-4711
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CHEMTREC: 800-424-9300



S U P E R S K I N S Y S T E M S

SAFETY DATA SHEET

APU Series

Revised June 17, 2015

1. IDENTIFICATION

Product Identifier used on label:

APU

Details of supplier of the Safety Data Sheet

Company:

Superskinsystems, Inc.
322 Industrial Park Dr.
Lawrenceville, GA 30046
Phone: 404-435-4201

Emergency telephone number

CHEMTREC: 800-424-9300

2. HAZARDS IDENTIFICATION

Classification of the product

Acute Tox.	4 (Inhalation – mist)
Eye Dam./Irrit.	1
Skin Corr./Irrit.	2
Skin Sens.	1B

Acute Toxicity
Serious eye damage/eye irritation
Skin corrosion/irritation
Skin sensitization

Label Elements

Pictogram:



Signal Words

Danger

Hazard Statements

H318	Causes serious eye damage
H315	Causes skin irritation

H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary Statements (Prevention)

P280	Wear protective gloves and clothing with eye and face protection
P271	Use only outdoors or in a well-ventilated area
P260	Do not breathe dust/gas/mist/vapors
P201	Obtain special instructions before use
P261	Avoid breathing mist
P202	Do not handle until all safety precautions have been read and understood
P284	(In case of inadequate ventilation) wear respiratory protection
P272	Contaminated work clothing should not be allowed out of the workplace
P264	Wash with plenty of water and soap thoroughly after handling

Precautionary Statements (Response)

P312	Call a POISON CENTER or doctor/physician if you feel unwell
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P308 + P311	If exposed or concerned: Call a POISON CENTER or doctor/physician
P314	Get medical advice/attention if you feel unwell
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water
P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician
P362 + P364	Take off contaminated clothing and wash before reuse
P332 + P313	If skin irritation occurs: Get medical advice/attention
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician

Precautionary Statements (Storage)

P403 + P233	Store in a well-ventilated place. Keep container tightly closed
P405	Store locked up

Precautionary Statements (Disposal)

P501	Dispose of contents/container to hazardous or special waste collection point
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Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered

Emergency Overview

WARNING:

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION. AVOID CONTACT WITH SKIN AND EYES. SKIN OR EYE CONTACT MAY CAUSE IRRITATION.

3. COMPOSITION /INFORMATION ON INGREDIENTS

<u>Component</u>	<u>%</u>	<u>CAS#</u>
Hexane 1,6 Diisocyanate	50	28182-81-2
Hexamethylene Diisocyanate	50	822-06-0Y

4. FIRST AID

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes: In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Indication of any immediate medical attention and special treatment needed

Note to physician

Antidote:	Specific antidotes or neutralizers to isocyanates do not exist
Treatment:	Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient

5. FIRE FIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media: water spray, dry powder, carbon dioxide, foam

Special hazards arising from the substance or mixture

Hazards during fire-fighting: nitrous gases, fumes/smoke, isocyanate, vapor

Advice for fire-fighters

Protective equipment for fire-fighting: Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

For large amounts: If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes. Dike spillage.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapors of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

Protection against fire and explosion:

No explosion proofing necessary.

Conditions for safe storage, including any incompatibilities

Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases. Segregate from bases.

Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2)

Further information on storage conditions: Formation of CO₂ and build up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

Storage stability: Storage temperature: 16 - 27 °C

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact. Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, depending upon conditions of use.

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Cover as much of the exposed skin as possible to prevent all skin contact. Suitable materials may include, saran-coated material, depending upon conditions of use.

General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Odor:	Faintly aliphatic
Odor Threshold:	N/A
Color:	Clear
pH Value:	N/A
Freezing Point:	-13 degrees C
Boiling Point:	200 degrees C
Sublimation Point:	No applicable information available
Flash Point:	>200 degrees C
Flammability:	Not flammable
Autoignition:	>470 degrees C
Vapor Pressure:	0.00001 mmHg
Density:	9.4 lbs./gal.
Relative Density:	No applicable information available
Vapor Density:	N/A
Partitioning coefficient (log Pow)	N/A
Self-Ignition Temperature:	This product is not classified as self-igniting
Thermal Deomposition:	No decomposition if handled and stored as prescribed/indicated.
Viscosity, dynamic:	330.000 mPa.s
Viscosity, kinematic:	No applicable information available
Solubility in water:	Reacts with water
Miscibility with water:	Reacts with water
Solubility (Quantitative):	No applicable information required
Solubility (Qualitative):	No applicable information required
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure
Other information:	If necessary, information on other physical and chemical parameters is indicated in this section

10. STABILITY AND REACTIVITY

Reactivity

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties:

Not an oxidizer.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

Conditions to avoid

Avoid moisture.

Incompatible materials

Acids, amines, alcohols, water, Alkaline, strong bases, Substances/products that react with isocyanates.

Hazardous decomposition productsDecomposition products:

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. TOXICOLOGICAL INFORMATION**Primary routes of exposure**

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/EffectsAcute toxicity

Assessment of acute toxicity: Inhalation of vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed.

Chronic Health Hazard

No evidence of mutagenic activity was observed in a bacterial mutation assay.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11, Eye irritation, skin irritation, allergic symptoms

Medical conditions aggravated by overexposure

The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Contact may aggravate pulmonary disorders. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. Pre-employment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.

12. ECOLOGICAL INFORMATION**Toxicity**Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.

The product may hydrolyze. The test result maybe partially due to degradation products. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish

LC0 (96 h) > 1,000 mg/l, Brachydanio rerio (OECD Guideline 203, static)

Aquatic invertebrates

EC50 (24 h) > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants

EC0 (72 h) 1,640 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Poorly biodegradable. The product is unstable in water. The elimination data also refer to products of hydrolysis.

Elimination information

0 % BOD of the ThOD (28 d) (OECD Guideline 302 C) (aerobic, activated sludge) Poorly biodegradable.

Assessment of stability in water

In contact with water the substance will hydrolyze slowly.

Information on Stability in Water (Hydrolysis)

t_{1/2} 20 h (25 °C)

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER)

Waste disposal of substance:

Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system.

Container disposal:

DRUMS:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

14. TRANSPORT AND INFORMATION

Land Transport

US DOT

Not classified as a dangerous good under transport regulations

Sea Transport

IMDG

Not classified as a dangerous good under transport regulations

Air Transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

Further Regulations

DOT: This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity (RQ). Please refer to Section 15 of this SDS for the RQ for this product.

15. REGULATORY INFORMATION:

Toxic Substance Control Act (TSCA) 12(b) Component(s): None.

OSHA Hazard Communication Standard (29 CFR 1910.1 200) Hazard Class Irritant.

Country Regulatory list Notification

USA TSCA Included on Inventory.

EU EINECS Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.

Canada DSL Not on Inventory. Notifications have been submitted to Environment Canada.

Australia AICS Not on Inventory.

Japan ENCS Covered by low volume exemption. Not on inventory.

South Korea ECL Included on Inventory.

China SEPA Air Products has received a polymer exemption from the Chinese government to import, manufacture or use.

Philippines PICCS Not on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

16. OTHER INFORMATION

SDS Prepared by:

Superskinsystems, Inc.

SDS Prepared on: 06/17/2015

Disclaimer/Statement of Liability:

The data in this Safety Data Sheet is offered for your consideration, investigation and verification. The data is presented in good faith and was obtained from sources SuperSkinSystems Inc. believes to be reliable. SuperSkinSystems Inc. however, makes no representation as to the completeness or accuracy. SuperSkinSystems Inc. makes no warranty, express or implied, with respect to the data contained herein. SuperSkinSystems Inc. cannot anticipate all conditions under which this data and the product may be used. The conditions of handling, storage, use, and disposal of the product are beyond SuperSkinSystems Inc. control. Thus, we expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information contained herein. You are advised to make your own determination as to safety, suitability and appropriate manner of handling, storage, use and disposal

END OF SAFETY DATA SHEET

