

AIR PRODUCTS AND CHEMICALS INC. -- HYDROGEN -- 6830-00-460-7704

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Product Identification
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Product ID:HYDROGEN

MSDS Date:01/01/1987

FSC:6830

NIIN:00-460-7704

Kit Part:Y

MSDS Number: CDJPY

=== Responsible Party ===

Company Name:AIR PRODUCTS AND CHEMICALS INC.

Address:7201 HAMILTON BLVD

City:ALLENTOWN

State:PA

ZIP:18195-1501

Country:US

Info Phone Num:215-481-5900 800-523-9374(IN PA)

Emergenc

y Phone Num:215-481-4911 800-424-9300(CHEMTREC)

CAGE:00742

=== Contractor Identification ===

Company Name:AIR PRODUCTS AND CHEMICALS INC

Address:7201 HAMILTON BLVD

Box:City:ALLENTOWN

State:PA

ZIP:18195-1501

Country:US

Phone:800-345-3148/ 800-752-1597

CAGE:00742

Company Name:SPECIALTY GAS TECHNOLOGY

Address:10207-D CHAPEL HILL RD

Box:City:MORRISVILLE

Phone:800-876-9581

CAGE:0Y5M5

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Composition/Information on Ingredients
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Ingred Name:HYDROGEN

CAS:1333-74-0

RTECS #:MW89

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Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

===== Hazards Identification =====

LD50 LC50 Mixture:SIMPLE ASPHYXIAN

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:THE LIQUID AND COLD GAS VAPORS CAN CAUSE CRYOGENIC BURNS.ANOXIA CAN OCCUR WHEN HYDROGEN IS IN THE FLAMMABLE RANGE AND THE MIXTURE HAS NOT IGNITED.

Explanation of Carcinogenicity:THER

E ARE NO INGREDIENTS ABOVE 0.1%

WHICH ARE IDENTIFIED AS CARCINOGENS BY NTP,IARC OR OSHA.

Effects of Overexposure:INHAL:LIGHTHEADEDNESS,DIZZINESS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

===== First Aid Measures =====

First Aid:SKIN/EYES:TREAT CRYOGENIC BURNS WITH TEMPID WATER.THERMAL BURNS SHOULD BE SEEN BY A PHYSICIAN.INHAL:REMOVE TO FRESH AIR.GIVE OXYGEN OR ARTIFICIAL RESPIRATION IF NEEDED.INGEST:NOT LIKELY TO BE

NEEDED;I TEM IS A GAS.

===== Fire Fighting Measures =====

Flash Point:FLAMMABLE GAS

Lower Limits:4

Upper Limits:74.2

Extinguishing Media:DRY CHEMICAL,CARBON DIOXIDE,HALON.

Fire Fighting Procedures:SHUT OFF LEAK.WHEN POSSIBLE,ALLOW FIRE TO BURN ITSELF OUT.COOL ADJOINING EQUIPMENT WITH WATER.

Unusual Fire/Explosion Hazard:HYDROGEN FLAME IS INVISABLE AND HAS LITTLE HEAT(PEOPLE CAN WALK INTO ONE WITHOUT KNOWING IT).EASILY IGNITED,BUOYANT,AND CAN ACCUMULATE IN HEADSPACES.

===== Accidental Release Measures =====

Spill Release Procedures:ELIMINATE SOURCES OF IGNITION.CONTACT AIR PRODUCTS FOR FURTHER ASSISTANCE.

Neutralizing Agent:NOT APPLICABLE.

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN A COOL,DRY,WELL-VENTILATED PLACE.KEEP CONTAINER CLOSED WHEN NOT IN USE.

Other Precautions:AVOID DAMAGE TO CYLINDERS.

===== Exposure Controls/P

Personal Protection =====

Respiratory Protection:DOES NOT APPLY.DO NOT ENTER A HYDROGEN ENVIRONMENT.

Ventilation:LOCAL VENTILATION AT THE WORKSITE;MECHANICAL(GENERAL) VENTILATION TO MAINTAIN TLV/PEL.EQUIPMENT SHOULD BE NON-SPARKING.

Protective Gloves:NOT NEEDED IN NORMAL SERVICE.

Eye Protection:SAFETY GLASSES

Other Protective Equipment:NOT NEEDED IN NORMAL SERVICE.

Work Hygienic Practices:EXECISE GOOD LABORATORY PRACTICES.WASH HANDS AFTER USE AND BEFORE EATING.

Supplemental

Safety and Health

THIS IS A COMPONENT OF A CALIBRATING GAS

MIXTURE(6830-00-460-7704/0Y5M5/A).HYDROGEN,SEE

6830-00-460-7704/88381/A;OXYGEN IN NITROGEN WITH CARBON MONOXIDE(AS

AN IMPURITY),SEE 6830-00-460-7704/NATIO/B;CA RBON DIOXIDE IN

NITROGEN,SEE 6830-00-460-7704/NATIO/A;OXYGEN,SEE

6830-00-460-7704/HOLOX/A.

===== Physical/Chemical Properties =====

HCC:G3

Boiling Pt:B.P. Text:-422F,-252C

Vapor Density:0.005229

Spec Gravity:0.0696

Solubility in Wa

ter:SLIGHT

Appearance and Odor:COLORLESS,ODORLESS GAS.

Percent Volatiles by Volume:100

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS.

Stability Condition to Avoid:HIGH HEAT,SOURCES OF IGNITION.

Hazardous Decomposition Products:MANUFACTURER STATES NONE.

===== Disposal Considerations =====

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH FEDERAL,STATE AND LOCAL REGUL

ATIONS.

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situation.